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Customer relationship value and profitability assessment in B2B relationships

Creation of partnership performance assessment process

Helsinki Metropolia University of Applied Sciences

Master of Engineering

Business Informatics

Thesis

21.10.2016

Author(s) Title Number of Pages Date	Toni Wikberg Customer relationship value and profitability assessment in B2B relationships 101 pages + 5 appendices 21.10.2016
Degree	Master of Engineering
Degree Programme	Business Informatics
Instructor(s)	Thomas Rohweder, DSc (Econ), Principal Lecturer
<p>In partnership-based business the value of the relationships between the supplier and its customers is the essence of the high performance. The functions of both parties needs to be developed constantly to achieve profitable and valuable relationships. The relationship value depends on variety of parameters, such as, trust and satisfaction that increases commitment which yield into profitability. Hence, it is clear that modern organizations with partnerships cannot rely only on marketing based on the classic 4Ps. Companies need to start viewing themselves as customer-centric organizations and add the 3Rs, i.e. retention, referral and repurchase, into their marketing schemes to build the commitment of their customers.</p> <p>This thesis presents the development of partnership performance assessment process (PPA) that relies on two distinguished dimension of customer relationship value. The First dimension is the internal value dimension, which is representing the case company aspect of relationship profitability, and the second is the external value dimension. The external value dimension is representing the satisfaction and commitment of the customers. The process relies on recurrent cycles of assessing the internal value dimension and measuring the external value dimension. These two dimensions form a portfolio canvas that divides the customers into distinct portfolios. The Portfolio Canvas is a representation of the relationship value of the individual customers.</p> <p>The process was developed based on a theoretical framework with three main topics, namely, the customer centricity, activity based costing (ABC) and customer perceived value (CPV). The CPV is translated into satisfaction and commitment through concepts of satisfaction–profit chain and service-profit chain. The ABC system was implemented into the case company CRM system to assess the customer profitability and the customer perceived value was measured with a satisfaction and commitment survey. Using the results of both the CPV and the CPA tool, the customers were placed into distinct portfolios.</p> <p>The proposed model for PPA was tested using the data currently collected in the CRM system and by surveying the customer base. The results were analysed and benchmark values were validated. The results were indicating the potential of the PPA process in making fact-based and intelligent conclusions. These conclusions can be used to develop the individual relationships with the customers. Moreover, the process itself drives the change of the organization towards customer centricity.</p>	
Keywords	CRM, RM, ABC, Portfolio Analysis, Perceived Value, Customer Satisfaction, SPC, Customer-centricity

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1 Introduction

This thesis is going to explore the factors that affect the profitability and value creation in the relationship between supplier and its partners in business to business environment. The case company in the thesis context is the supplier of the products, support and services for the partners. The partners are the buyers of the products and services. The relationship between the supplier and the partners is viewed in means of enhancing the profitability and assessing the performance with the intention to establish links between the supplied value creation functions and the corresponding partner value creation functions. The partners and partner companies are referred in the thesis as customers and the customer base. The relationship between the case company and its customers are contractual by their nature thus the profitability can be developed through driving long-term relationships with the customers and emphasising the customer re-purchase behaviour and moreover by decreasing relationship costs i.e. create savings in cost-to-serve (Kumar and Reinartz, 2012). The emphasis is on the supplier frontline support and services that needs to be developed according to the customer demand and needs. The key to succeed in long-term is to build individual customer satisfaction, retention, loyalty and profitability.

1.1 BAS industry and the case company

The case company is a manufacturer of building automation system (BAS) products i.e. BAS specific software, components and controllers. The case company is a subsidiary of an internationally operating conglomerate that provides the vital functions for manufacturing operations such as procurement, production planning and research and development resources. The case company operates its own factory independently and has its own marketing and sales organization with locally operated customer and technical support teams.

Due to corporate level functions in production, the cost level is more or less established. The case company has reduced capability to compete with traditional marketing mix based on the 4 P's, Place, Price, Promotion and Product. Moreover, because of the fixed costs such as the production and logistics costs, but also for the reason that the marketing policies are tightly bound in corporate strategies, the competitive edge needs to be

recognized elsewhere and this emphasizes the role of the customers. The market share and revenue of the case company highly depends on the customer value creation capabilities and, therefore, it is important to manage the customer base efficiently. From the marketing point of view the 4 P's needs to be enhanced by the concept of 3R's where the R's stand for retention, referral behavior and repeat business or repurchase intentions (Heskett et al., 1997; Dev and Schultz, 2005). The 3R's refer to relationship marketing that is seen more customer centric approach to marketing than the traditional marketing mix. Furthermore the 3R's are seen important in aspects of customer relationship management and customer relationship development.

The BAS market is suffering from hard rivalry combined with price erosion and it can be characterized as an oligopoly as there are only a few rivals and the products by different vendors are similar in many aspects. BAS market can be further characterized as inelastic because the demand for BAS systems is seen inelastic. This is due to specific in-house environmental regulations that requires a building to contain automated and mechanical air handling and heating systems. For instance, the in-house breathing air CO₂ content is controlled by the BAS system and it cannot exceed over certain level in offices and public facilities. Another characteristic in BAS market, particularly in Finland, is that the market share highly depends on the pricing of the products. This means that the low price products seem to win more market share. Due to these characteristics, it is vital for the case company to pursue other means than pricing to compete. One way to tackle the reduced capability to penetrate into the market by pricing, product features and mass marketing, is by providing excellent support and bundled services. Importantly, the services that are bundled with the products needs to be valued by the customers and end users of the BAS systems to be able to increase the product sales. Creating such value adding services requires thorough knowledge and understanding of customer value creation functions and it requires also efficient knowledge transfer from the case company to the customers e.g. by trainings and advanced support.

BAS market in Finland has been dominated by a few companies that have been the same for years. The market size is approximated to be 130 million € and the growth in Finnish Building automation market is seen to be fairly good depending on overall situation of construction industry (Accenture, 2015). Despite the investments in new construction projects are declining and the stagnating economy, the BAS market growth is seen stable, in one aspect, because of the retrofitting project base i.e. the renewal of out aged

BAS systems in older facilities. Retrofitting projects are important especially in non-residential segment of the BAS market. The brand value is the key factor in retrofitting business thus it is highly important to pursue high quality in supplied BAS systems. Quality is one of the important criteria demanded in customer companies' value creation functions.

The BAS market can be roughly divided into two main segments, the non-residential buildings and the dwelling buildings. The non-residential buildings are schools, office blocks, warehouses, factories, malls and similar. The dwelling segment is more concentrated on apartment houses and homes, where the business is seen more similar to business-to-consumer (B2C) market. The case company is concentrated in non-residential buildings and has a market share of approximately five percentages in Finland.

The case company and its significant rival's use intermediaries called system integrators (SI) to distribute their products. These distributors are referred as customers of the case company in this thesis. In Finland the SIs are independent small to medium sized companies with specialized BAS engineers. The function of the SIs is to buy BAS products from the case company and engineer (i.e. programming, installation and testing) the equipment and software to build up an automated environmental supervising system of a building. The BAS market is dominated by these companies and currently the dominance of the big conglomerates is reduced. The conglomerates, which the case company is also a part of, that have been dominating the market are switching their focus from traditional project engineering into providing services for the SIs and sell their products through them. Therefore, the market share and revenue of the case company is dependent on the sales excellence of the SIs. When comparing the amount of SI companies, the case company does not have significantly less SIs than the rivals. Hence, the market share of the case company can be seen dependent on the relationship value and profitability with its SIs.

The efficiency and the profitability of the SI companies are highly dependent on the quality, effectiveness and value adding of the case company supporting functions. The support functions and services that the case company provides to its customers are product and technical training, dedicated programming tools, sales, marketing and technical support. These functions can be seen as enablers for the SI companies' value creation functions and to establish the market share or even grow the market share, these functions need to be constantly and critically evaluated and developed.

The case company has established local support teams i.e. frontline teams in more than 60 countries worldwide. The front line generally consists of a key account manager or a business development manager and a technical support manager or a technical supervisor. The frontline team is responsible for the management of the relationships with the local customer companies. The profitability of the relationship between the individual SI and the case company has an extremely high importance in the success of the case company business, thus, the case company should be recognized as a customer oriented organization which views its operations from the customer point of view (Storbacka and Lehtinen 2001). This customer orientation, i.e. customer centricity, generates demand for the case company to monitor and manage its relationships with the SIs and, therefore, drive the enhancement of the SI company value creation functions. The intention of the case company is to establish relationships that are profitable and long term with emphasis on loyalty, in other words, to establish partnerships. The general view from the literature on customer relationship management suggests that the customer relationships can be assessed based on myriad parameters and the performance depends on different elements. It is essential that these elements and parameters are taken into account when evaluating the profitability and when the value of the relationships is determined. It is highly important in means of the success to excel in the partnership management initiatives and to drive the customer value creation efficiency.

It is not possible for the case company simply to pick and choose its partner companies to sell its building automation products to. Suitable and capable partner companies are not that common. The evolution to become a capable and profitable system integrator partner requires extensive investment of time and dedication. The key for the case company to succeed is to develop and manage the existing sales channels i.e. SIs more efficiently. To achieve this, the case company needs to pay more attention on developing and harnessing the partnerships with the current SIs by means of elaborating the vital attributes of profitable partnerships, such as customer loyalty, mutual trust, shared visions and declaring mutual targets. Moreover, the case company needs to view its operations more from the customer point of view than from the product point of view, thus, it genuinely needs to turn into a customer centric organization (e.g. Storbacka and Lehtinen, 2001; Fleischer and Bensoussan ,2003; Szwarc, 2005; Hill and Alexander, 2006).

1.2 Business challenge, the objective and the outcome

The case company business is to manufacture and sell products, which are used in building automation systems, to clients in construction industry. Case company uses system integrator partners as intermediaries to sell the products. Success of the case company business relies on the partner relationship with these 15 companies. The sales rates and market share, moreover, the profitability of the relationship is dependent on both, the performance of the individual partner companies, and on the performance of the case company functions. Hence, the challenge currently emerges from the problem that the relationship management decisions are not based on actual and reliable data, moreover, the CRM decisions are based on tacit knowledge and perceptions of the front-line employees. Therefore, the business challenge in this thesis can be phrased as follows:

Currently there is no comprehensive process to define the value and performance of the partner relationship. The different activities of the SI companies' and case company's value creation functions are in the key position to facilitate a sustainable and mutually successful partner relationship in terms of building automation product sales.

Hence, the research topic in this thesis is focusing on developing a process that can be used in recurrent and continuous assessment of the value that the relationship delivers for the parties involved. Furthermore, to use the data revealed to develop the relationships. Therefore, the objective of this thesis is,

To create a model for partnership performance assessment process (PPA) to be used in continuous and recurrent evaluation of the case company - SI relationship. Through the assessment, develop the relationships with individual partnership improvement plans and suitable relationship strategies, thus, ensuring the capability of the relationship to foster the success of the case company product sales.

As the output of this research the case company in Finland, particularly, the frontline team, will have:

Tools, to analyze the profitability, satisfaction and loyalty of the customers, hence, the value of the relationship. The tools are used recurrently and continuously, assessing the performance of the relationship, to be able to develop the relationships between the involved businesses.

2 Project Design

This chapter is going to introduce the research plan and discuss the data collection and analysis methods that are used in the thesis. Before the research plan is presented with details on different phases of the research, the research philosophy and research approach are discussed. Then the research plan is presented following by the planned data collection methods. Finally there will be some discussion on data validation and building the reliability of the research and the analysis methods of the research data sections are clarified.

2.1 Research philosophy and approach

The focus of this thesis is on developing means to collect and analyse data on partnerships. Thus, the essence of this thesis is to establish knowledge on what are the reasons behind the relationships to evolve and foster or to fade, and how should this knowledge be used in most efficient means. The fundamental topic of this thesis can therefore be seen as interpretivistic, as the core of it is about acknowledging issues or meanings, reorder and rebuild these, understand these and using them to create solutions (Goldkuhl, 2012). This thesis is grounded on philosophy of interpretivism with action research approach by, first, using exploratory means to frame the issues and problems according to data collection phases and, secondly, to further investigate the data by using mixed methods such as questionnaires, interviews and workshops.

The outcome of this thesis will be grounded on both quantitative data and qualitative data. The qualitative data is tentatively grounded by using exploratory approach to clarify the problem at each stage and to identify the meaningful parameters that can be seen as tacit knowledge and interpretations. Marshall and Rossman (2006: 53) states that the exploratory approach is suited well in researches that tries to uncover tacit information such as perceptions and to define a method of collecting information such as development of surveys.

2.1.1 Action research

The research approach or strategy that was chosen in this thesis is action research (AR). The AR approach was chosen because of the research setting and the planned steps to develop the thesis output are by nature following the views of Cochlan and Brannic

(2014). The environment, i.e. research setting, where the research is taken place is within an organization (case company) where the researcher is employed, thus, researcher is an active participant in the research. The different phases of the research, i.e. data collection and analysis, to be able to develop the intended outcome of the thesis are requiring co-operation between the employees and the customers. Furthermore, for the intended outcome to be established and initialised, the change to adopt new ways to work and new processes introduced, requires re-education and shaping of the current setting. Cochlan and Brannic (2014: 6) defines AR as:

“A procedure in which the participants of a social system are involved in a data collection process about themselves and they utilize the data they have generated to review the facts about themselves in order to take some form of remedial or developmental action.” (Cochlan and Brannic, 2014: 6)

As stated, action research is a research approach that is based on collaborative work to solve problems and generating new knowledge. Collaborative in this thesis means that the author is an active participant in the research project concerning the case company and the employees and the customer companies and their employees' relationships. Action research is further described by Cochlan and Brannick (2014) as a cyclic process where the same steps follow each other systematically. The steps can be generally described as planning, collecting data, taking an action, interpretation and analysing the results of an action to plan further next steps. Every step of the cycle has its own learning process called experiential learning cycle. The learning cycle is where every step is experienced, reflected and interpreted and, finally, making decisions on how to proceed. For example, has the action research cycle step produced the intended outcome or not i.e. every step will be analysed as part of conducting the step. The action research cycle is represented in figure 1.

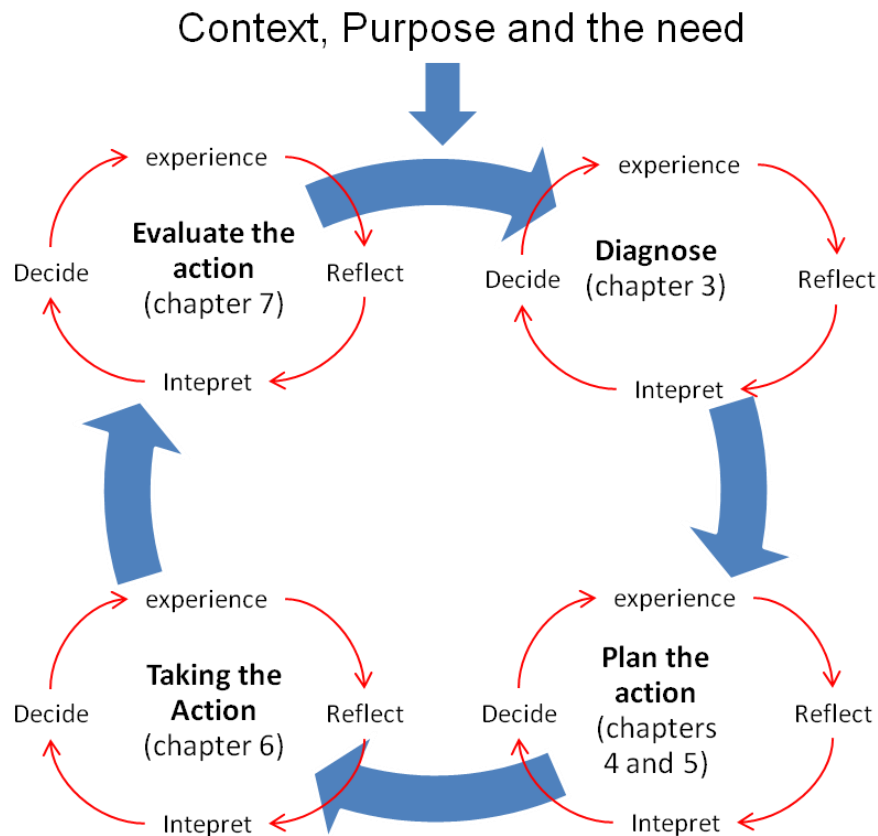


Figure 1. The adopted action research cycle (Cochlan and Brannic, 2014)

The action research cycle can be applied in the thesis context where the first phase is to generate current knowledge on the customer base and analyzing it by customer relationship profitability i.e. diagnosing the current state in chapter 3 (Diagnose). The next phase is to develop a plan to assess the profitability of customer relationships in other words developing a conceptual frame work in chapter 4. After the concepts to assess the relationships have been identified, the initial assessment process will be introduced in chapter 5 (Plan the action). The development of the assessment process can also be seen as an internal cycle of action research step 3 where the phases of planning in co-operation both internally and with the customers is repeated to achieve a commonly accepted process model, i.e. building the assessment model and testing it in chapter 6 (Taking the action). Finally, in chapter 7 of the thesis, the assessment model will be evaluated, as will the whole research process itself (Evaluate the action).

2.2 The research plan

The quantitative data is based on secondary data sources, such as case company internal databases, activity data logged in to the CRM system and financial data on customers. The qualitative data collection is going to be based on unstructured questionnaires linked with semi-structured interviews and participatory workshops, both with the customers and internally with the case company stakeholders. The semi-structured interviews with the relevant stakeholders are used to probe deeper in to the issue at hand and build reliability on the data, furthermore, to validate the assumptions presented in the preceding questionnaires. The workshop meetings are consolidating the initial interpretations and validating the outcome of the analysis by striving consensus.

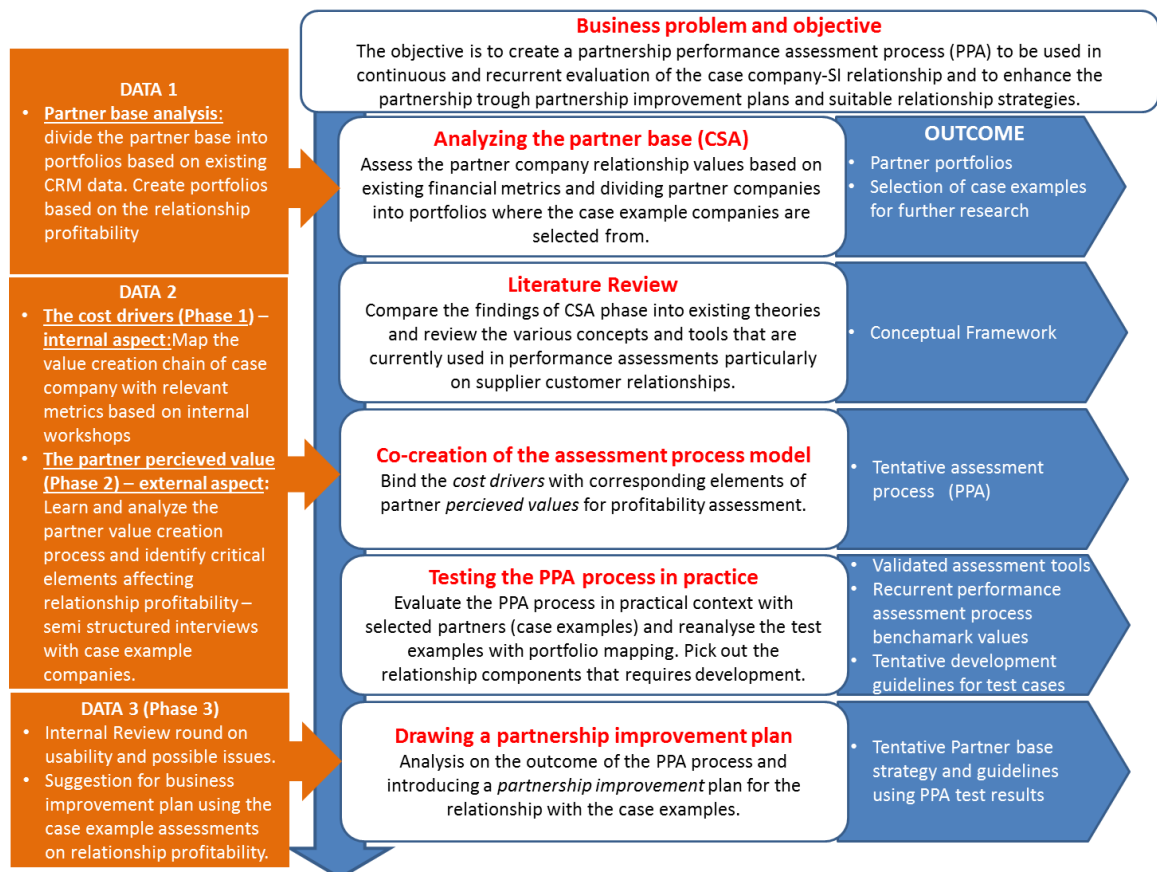


Figure 2. The planned research steps.

The first step, data 1, is used to analyse the case company current data on the customers'. The data is collected by interviewing the case company stakeholders and assessed in the internal workshop. Second step, collecting data 2, is divided into two separate sub phases where the first one is to enhance and prepare the CRM system to support the

process of collecting quantitative data on case company service and support activities and customer revenues. The identification of the activities and related functions is preliminary conducted by unconstructed questionnaires followed by internal workshop. The aim of the workshops is to establish mutually accepted methods of collecting the data. In the second sub phase, the internal aspect is fulfilled with the external point of views, which are the customer perceptions on value and perceived satisfaction. To establish uniform process of collecting customer perceptions, there will be semi-structured interviews conducted with selected customers. Data 2 will be scoped and specified based on the best practices found in the existing literature on CRM and RM. The proposal will be developed in co-operation with the customers and case company employees using exploratory approach by interviewing the stakeholders and analysing data in workshops. The third step of the thesis will be the testing of the introduced assessment model, data 3. Based on the data received from the tests, there will be an initial development plan and strategic guidelines to develop the supplier-customer relationship. Finally, the partnership performance assessment (PPA) model will be introduced and a recurrent assessment process is presented. The data collection methods and data analysis methods are discussed in more detail in the following chapters.

2.3 Data collection and methods

The quantitative data will be collected from various sources in the case company financial data and in the CRM system. The data that is collected will be used to determine the profitability of individual customer, and by using the relative profitability values, the customer base portfolio analysis is performed. The qualitative data will be collected by questionnaires, and to probe deeper in the related topic, semi-structured interviews will be carried out. The final analysis and decisions are carried out in participatory workshops. The workshops are intended for sharing and analysing the qualitative data in co-operation with relevant stakeholders. The data collection and related methods are presented in table 1.

Table 1. The data collection and methods

	objectives / outcome	Methods	Participants
DATA 1 (CSA)	<ul style="list-style-type: none"> Identify the initial partner company types based on the profitability of the relationship using the current metrics in case company CRM system and comparing the results in to the views of BDM and RSM. Dividing partner companies in portfolios Choosing the example cases from suitable initial profiles. 	<ul style="list-style-type: none"> CRM system data analysis Qualitative questionnaires Internal Workshop 	<ul style="list-style-type: none"> Business Development manager Regional Sales manager Technical manager
DATA 2	<ul style="list-style-type: none"> Phase 1: Identify the case company activities yielding into cost-to-serve. Decide the activity driver cost pools i.e. Activity pools. 	Phase 1, exploratory research: <ul style="list-style-type: none"> Initial questionnaire Interviews (by email and Lync) Internal Workshop 	Phase 1: <ul style="list-style-type: none"> Case company Nordic team BDM and RSM
	<ul style="list-style-type: none"> Phase 2: Identify the customer perceptions and value drivers towards case company support and service functions. The development of CPV and satisfaction survey model. 	Phase 2, exploratory research: <ul style="list-style-type: none"> Semi-structured interviews with un-structured questionnaires Internal Workshop 	Phase 2: <ul style="list-style-type: none"> Selected case example SI's BDM, TM, RSM
DATA 3	<ul style="list-style-type: none"> Analyzing the outcome of the PPA process testing on whole customer base. Deciding goals and actions to enhance the partnership profitability and value using the selected test examples. Suggestions for the initial portfolio strategies. 	<ul style="list-style-type: none"> Workshop Review round by e.g. Lync meeting 	<ul style="list-style-type: none"> Whole customer Base Selected case example SI's Case company local team, Channel leader and CSM

Cochlan and Brannick (2014) present five key points that needs to be considered in the recurrent cycles of the action research when it is conducted in an organization. These key points are:

1. Data needs to be collected systematically on the system or a process that is under investigation.
2. The data needs to be discussed and interpreted with the involved parties.
3. The data needs to be analysed in collaboration with the stakeholders.

4. The planning and the actions needs to be based on co-work between the stake holders
5. The outcome needs to be evaluated in co-operation to be able to make further plans.

In this case the data i.e. relationship performance metrics will be collected into the CRM system and the collaboration requirement will be filled by, first, interviews and workshop meetings and, secondly, the development efforts will be reflected in the daily tasks and encounters with the co-workers and the customers, i.e. the progress of the development process is evaluated in every encounter that concerns the customer base due to constant data collection into the CRM system.

2.4 Research validity and reliability plan and the data analysis

The business problem is involving recurrent decision making and daily actions that affects the profitability of the partner relationship. The data needs to be collected constantly and as frequently as possible to achieve a level of reliability and credibility in the results. The reliability of the data is emphasized as the development decisions are going to be based on these. In the scope of this thesis this means that the data, which is required to assess the relationships, has to be collected at the beginning of the first phase of the research to achieve a starting point of enhancing the relationships. In the case company context this means that relevant data needs to be logged into the CRM system as soon as it is possible.

The data analysis will be carried out in each step as required by the phase context. The data validity and reliability will be pursued through demanding consensus in the stakeholders views, i.e. the diverse data collected will be discussed and mutually approved within stakeholder meetings (workshops). Moreover, the data analysis will be carried out in co-operation with the stakeholders to validate the output of each phase. Regarding the intended outcome of the thesis, the validity and reliability is tested and enhanced within the recurrent cycles of the assessment process itself. Generally, the validity and reliability of this research is based on data triangulation, which is to employ multiple sources of data, and using different data collection methods (Long and Johnson 2000). Furthermore, as the thesis is applying AR, it can be argued that replicability and universality do not apply in the outcome of this thesis (Cochlan and Brannick 2014, 10), which

then again is comprehensive, as the data collected are based on views strictly concerning the case company and its customers. Hence, the results might not be applicable outside the case company context.

The next sub headings will discuss the data collection and analysis in more detail. The process of collecting and interpreting data is based on views presented by Cochlan and Brannic (2014), the Lewin's concept of AR, where iterative cycles of identifying a problem, planning, acting and evaluating grounds the data collection and analysis in valid and reliable means.

2.4.1 Data 1 – current state analysis on the partner profitability

Data 1 will be collected in three separate phases. First phase is to collect the required data in the company CRM database and different other files in company servers to determine if the data available is rigour enough and assess the availability of the data. The second phase will investigate the perceptions of the involved stakeholders regarding customer profiles to determine if the customer is seen profitable or not. The final phase is to analyse the results from phases one and two to be able to establish an initial customer portfolio analysis. The analysis is based on testing the qualitative responses of the questionnaires sent to case company BDM and RSM against the actual quantitative data saved in company databases on the customers.

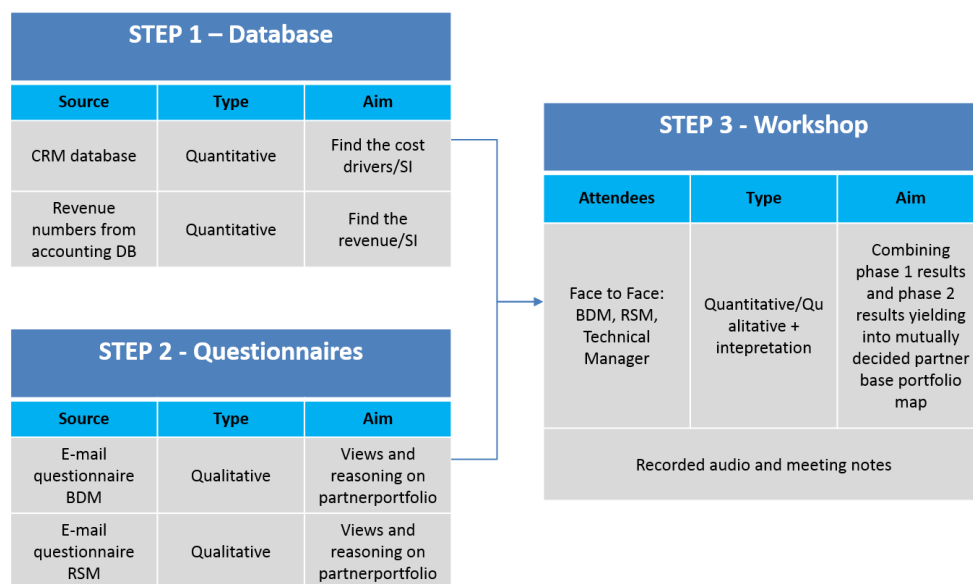


Figure 3. The process and methods used in collecting Data 1

The data collection and interpretation phases presented in figure 3 include:

- Exploratory phase (identifying), where the data is collected from company documents and by structured questionnaires. The aim of this phase is first, to explore the company CRM system and data bases to evaluate the richness, value for intended outcome and data accessibility and secondly to identify the perceptions of the local team about who are the most valuable customers and the reasons behind these choices. Thirdly to reveal the team views on initial customer base portfolios and last, to identify the required changes in the process of collecting and logging the data into the CRM system.
- Planning, where the profitability calculations and portfolio analysis is conducted by comparing the quantitative data with the qualitative data. This phase produces the initial spreadsheet that is used to illustrate the relative profitability of the individual customers.
- Acting and evaluating, where the conclusions and analysis is conducted in co-operation within the team members. This phase result in preliminary customer portfolio analysis and validation of the results of data 1 phase.

2.4.2 Data 2 – Development of initial assessment model

Data 2 combines case company internal aspect on individual customer profitability and external aspect, i.e. customer perceptions of case company support and service functions. The data 2 collection and analysis is divided in two separate steps where the first step is to produce the activity map and activity categories that are the basis for cost-to-serve assessment. The second step is to reveal the factors that affect the profitability and the value of the relationship reflecting the customer point of view. The second step is about exploring the perceptions of the customers.

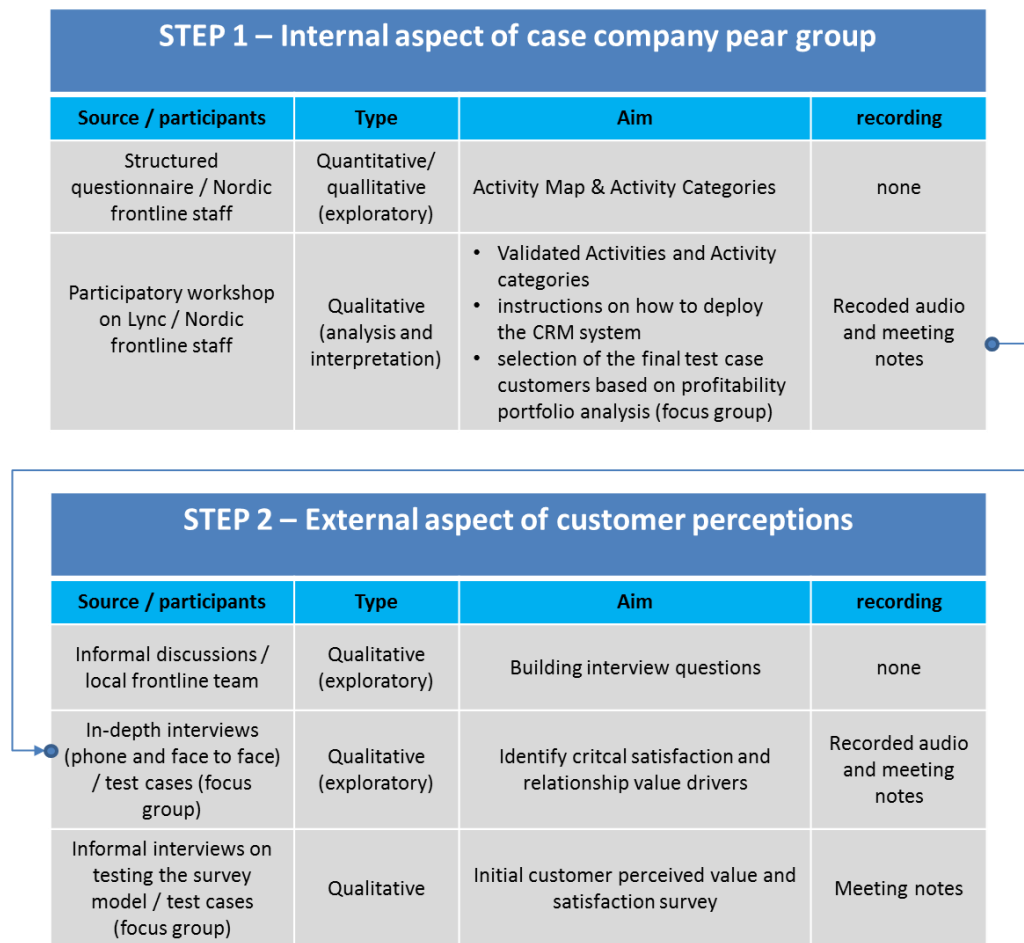


Figure 4. The process and methods used in collecting Data 2

The data 2 collection and interpretation phases presented in figure 4 are:

- Internal exploratory phase (identify), is to identify the support and service activities and activity categories. The data is collected by structured questionnaires that are sent to Nordic team. The aim of this phase is to identify the factors that are seen relevant and real in the support and service functions and also to seek plausibility in researcher's views of the functions.
- The internal planning phase includes the modification of the company CRM system to support the collection of various activities and establishing reports in the CRM system to drive activity data based on the various categories. Furthermore there needs to be instructions on the best practices to collect the data into the CRM system. And finally the initial portfolio analysis tool presented in data 1 phase needs to be enhanced to support the CRM system reports.

- Internal acting and evaluation phase is conducted in workshop meeting with the stakeholders, i.e. Nordic team to, first, test and present the intended portfolio analysis tool and to introduce the best practices to collect the activity data. Secondly, the portfolio analysis results are validated by mutual acknowledgement and, finally, the test case customers are selected based on the portfolio analysis.
- External exploratory stage. This stage is to identify customer expectations of high quality and high performing support and service functions and to reveal the critical satisfaction drivers. This phase is conducted by in-depth interviews with the customers selected in latter phase. The interview questions are structured and piloted based on informal discussions between the team members to build more rigour aspects in the interview. The aim is to probe the tacit factors of perceived value and relationship satisfaction.
- External planning phase. This phase is where the customer survey model is created internally within the local frontline team. The survey is based on the analysis of exploratory in-depth interviews conducted in latter phase. The analysis is conducted in informal team meeting within the local team and the exploratory data is interpreted based on statistical methods.
- External Action and evaluation phase is the testing of the initial survey model with the selected test companies. The initial survey is piloted with the selected customers and refined based on their perceptions of the survey. The piloting will be conducted by informal interviews.

2.4.3 Data 3 – Testing the proposed assessment model

Data 3 is based on test results of the proposed assessment model. Data 1 builds the premises for conducting customer portfolio analysis by individual customer profitability metrics. Data 2 is used to enhance the CRM system data collection methods and finalising the intended portfolio analysis tool. Data 2 builds on both internal aspect, the portfolio analysis, and more importantly, it identifies the critical drivers in customer perceived value and satisfaction towards provided support and service functions. Data 3 is therefore the initial assessment round of whole customer base that can be used as benchmark

for future customer evaluations. The data collection and analysis in data 3 phase consist of:

- Identifying stage, where the relevant customer decision making units (DMU's) (Hill and Alexander 2006), i.e. the survey participants, are decided based on data 2 in-depth interview outcome and internally by the local frontline team.
- Acting phase is to send out the customer survey. The survey participants are decided in the latter stage and it is used to collect data on relationship perceived value and satisfaction towards the case company support and service functions.
- The evaluation, analysis and validation stage is based on, first, local frontline team meeting where the benchmark values of the test are analyzed and validated and initial portfolio strategies are proposed. The final stage is to present the proposed model for customer assessment in a team meeting with case company Nordic team. The proposal is discussed and evaluated and the final model is validated.

3 Relationship profitability assessment and partner base portfolios

According to Storbacka and Lehtinen (2001) and Fleischer and Bensoussan (2003), generally, the first step of the customer relationship assessment is to divide the customer base into portfolios. Dividing the customer base into portfolios reveals the enhancement potential of different customer relationships. Furthermore, when the ultimate goal is to enhance the profitability of the SI relationships, thus, win more market share and increase sales of the BAS equipment and software, the initial portfolios in this context are determined by relationship profitability.

Relationship profitability is dependent on variety of different factors such as service quality, customer satisfaction, relationship strength and relationship longevity (Storbacka et.al, 1994). These factors affect the relationship revenue and costs, which then again, are the parameters that the relationship profitability is based on. The customer base portfolios can be analysed based purely on quantitative data, for example, historical financial data that Storbacka (1997) refers as retrospective data. Yet, in this context the current state analysis will not be grounded only on recorded and measured quantitative data due to lack of rigorous measurement data in the case company CRM system. In order to consider a wider aspect of tacit factors effect and the hidden reasons behind the relationship profitability, and moreover, to build credibility on the outcome of the current state analysis, there were structured questionnaires carried out with persons that have a good insight and views about the current situation of the customer base performance. The current state analysis produced an initial partner portfolio, which was generated through interpretation of both quantitative and qualitative data in a participatory workshop.

3.1 Conducting the current state analysis

The business problem defines that case company needs to identify the individual customer profitability and value to determine which one of the customers is worth to focus the scarce resources on. In aspect of profitability, the first task is therefore to analyze and assess the partner companies by their annual revenue and by their cost-to-serve ratio, i.e. their demand towards, or the consumption, of the case company support and service functions. The aim of current state analysis phase was to determine the current customer profiles drawn by their revenue according to financial records and the costs

the customers has caused or demanded within a certain time period. The outcome of the current state analysis was an initial partner portfolio that was determined in the final workshop with relevant stake holders. The steps to collect the required data for the current state analysis are presented in table 2.

Table 2. Data collection steps of current state analysis

Research object(s)	Methods and reason / type of data	Participants	Duration / recoding methods
<ul style="list-style-type: none"> Company documents CRM systems database on customers Customer financial data in CRM system 	<ul style="list-style-type: none"> Exploratory research on secondary data to identify data and assess data richness, accessibility and evaluate the validity of the data / quantitative data 	<ul style="list-style-type: none"> Technical manager (researcher) 	<ul style="list-style-type: none"> Data collected and summarized onto a spreadsheet
<ul style="list-style-type: none"> Employee perceptions on customer value and profitability and assessment of individual customer portfolio 	<ul style="list-style-type: none"> Exploratory Structured questionnaire / Qualitative data 	<ul style="list-style-type: none"> BDM and RSM 	<ul style="list-style-type: none"> saved on separate files, added answers onto the spreadsheet Appendix 1
<ul style="list-style-type: none"> Evaluation, assessing and data validation Initial customer portfolio analysis 	<ul style="list-style-type: none"> Participatory team meeting (Workshop) 	<ul style="list-style-type: none"> BDM, TM, RSM 	<ul style="list-style-type: none"> Duration 1,5 hours Recorded and noted

The first step of the current state analysis was to collect data from recorded activities (i.e. CRM tasks, events and cases) as per customer in case company CRM database and compare these to the recorded revenues of the customers. The second step was to send out questionnaires to case company BDM and RSM to collect qualitative data on the intangible parameters, such as, professional opinions on partner profitability's and the reasons behind these opinions. The final step was to draw the conclusions based on secondary CRM data results combined with the views found in the questionnaires to determine a mutually accepted SI portfolio. The object of the current state analysis phase

was to establish a starting point for the development of a partnership assessment process deployed on individual relationships between the case company and the SI companies. The next chapters will explain the used methods and data collection steps in more detail.

3.2 STEP 1 – SI revenue and related activities based CRM database

Step 1 of current state analysis was to investigate the data recorded in the case company CRM database to find the values for relationship revenue (RR) and to identify the corresponding relationship costs (RC).

In the beginning of the data collection, the notable observation in the recorded data was that the activities recorded into the CRM system were not as informative as supposed, and there were gaps in the data. The activities collected into the system were mostly technical encounters and events with no exact information for example on the duration of the activities and furthermore the different types of encounters were not clear. The sales and marketing activities consisted only of calendar events. Due to deficiencies in the availability and accuracy of the CRM data, the need for additional sources of data emerged. The data of different activities such as special price requests and trainings were scattered into different reports and files, and importantly, there were no specific logs on phone calls.

As the phone calls are presumed to represent an important share of time consumed on customers, the effect of phone call amount and duration on portfolio mapping had to be assessed. The affect was assessed by a separate test where the existing customer driven activities logged in the CRM system were compared to the amount of phone calls conducted. For testing purposes, the phone call logs from frontline employees were exported into separate file and compared the duration and amounts to other activities logged in the CRM system and external files. When comparing the effect on the results with and without the phone calls under the chosen time period, the ultimate outcome did not change i.e. the portfolios were not changed. Thus, the phone call logs were left out from the portfolio analysis at this stage due to the complexity of accessing the phone call data. The test results are presented in table 2 in chapter 3.6.1.

The data on the activities quantities i.e. the number of encounter tasks and events were traceable individually on every SI account. Assessing the data deficiencies against the

intended goal of the current state analysis, the gaps in the data were not seen to cause critical deficiency for evaluating the relative costs per customer. The time load per encounter was not dependent on the encounter type, moreover, it was based on the tacit characteristics of individual partner company. The share of the activities conducted on single partner company was dependent on factors that were not obvious, for example, the amount of the emails conducted on single partner was higher on those partners who were in overall more active and lower with those not so active, thus, the difference between the individual partners cannot be explained only based on the recorded data currently available.

The cost and revenue related data, that was chosen to be used in the portfolio analysis, was collected from previous fiscal year. The data collection does not include phone call activities as these were not seen critically affecting the outcome of the portfolio analysis at the current phase. Encounters that consumes time in the case company enabler functions, i.e. creates costs in the case company support functions are mainly writing emails, face-to-face meetings or different events, such as, fairs and trainings. The following main activity categories, representing the costs of the activities (RC), were identified at this stage:

- *2015 activities in CRM*, these are mainly emails logged into the database.
- *2015 Spags*, special price requests, data was collected from separate file.
- *2015 Training days*, data was collected from separate file.
- *2015 Other events*, face to face meetings and other whole day events were collected from separate sources.
- *2015 Cases*, Technical support issues that are not included in the activities and product returns.

The relationship revenue (RR) is the monetary income per SI:

- *2015 sales*, the sales for each SI Company.

The data was collected into a MS Excel file. The calculation on customer relationship profitability and dividing customers into the initial partner portfolios are represented in table 3 in summary section of this chapter.

3.3 STEP 2 – Views and opinions of the case company SRM and BDM

The intention of step 2 of current state analysis was to reveal the views and opinions of the case company personnel responsible of the partner base and collect qualitative information on current customer relationships. The aim was to reveal the tacit knowledge and the intangible factors that affect the relationship profitability. Step 2 was carried out by sending out questionnaires to the chosen respondents.

The respondents were provided with background information on the method to be used in dividing customers into specific portfolios. The method introduced is based on a research article by Storbacka (1997) on customer segmentation based on profitability. The method Storbacka presents is comprehensive and rather easy to carry out for the purpose of the task. Respondents were asked to divide current customer base into four different portfolios and write down their corresponding justifications for their decisions.

Storbacka (1997) presents four different methods to divide a customer base into segments. He labels these as “retrospective methods” as these are based on historical data and does not take into account the future aspects. The first method is segmentation by combining relationship revenue (RR) and relationship costs (RC). The second method is to use relationship volume in segmentation analysis, for example, the amount of exchange of goods and services or some other volume indicator. The third is to segment the customers based on their profitability either by using relative values to whole customer base or absolute values using real values of the RR and RC. The fourth method is to combine the methods based on volume and profitability. In this occasion the first choice was selected because of its adaptability in case company historic data and the traceability to the needed parameters RR and RC.

The respondents were chosen based on their professional views of partnership management and their recurrent encounters with the customers. The respondents have also insights to the customer base, which might reveal important aspects of intangible factors that are required to assess the relationship profitability more precise and prospective means.

The results of step 2 were assessed and discussed with the respondents and, furthermore, the results from step 1 were compared with the step 2 responses in a workshop meeting (step 3).

3.4 STEP 3 – Workshop meeting

Step 3 of current state analysis was to arrange a workshop meeting with the responsible members of the case company sales, marketing and technical support in Finland, to decide a mutually acknowledged customer portfolios. Furthermore, the portfolios were used to identify potential customers and to interpret possible issues in aspect of the relationship profitability. The author was representing he's own field and participated in the meeting as a democratic member.

The results from step 1 and 2 were discussed and interpreted. The aim was to compensate the deficiencies in data accuracy of step 1 with the intangible factors found in step 2 to establish the initial partner portfolios. The workshop was captured for later analysis by recording the meeting audio parallel with meeting notes.

3.5 Summary and results of the current state analysis

This chapter presents the results from each step of the current state analysis. First, the results of the phone call activities effect on the portfolio analysis is presented, then the step 1 results are explained. The step 2 results are presented by combining the step 1 results with the questionnaire data. Finally, to create the partner portfolios for the case company partner base and to establish pre understanding for developing the thesis output, the results of step 3 workshop are presented and the portfolio map is revealed.

3.5.1 Phone call effect on portfolio analysis

Table 3 illustrates the differences between portfolio analyses when the phone calls are not included in the costs and in the case where the phone calls are included. Due to the complexity of gathering the phone call data within certain time period, the time period under observation has been reduced into three months in contrast to STEP 1 to 3 where the time frame was chosen to be whole fiscal year of 2015.

Table 3. The results on testing the phone calls duration effect on portfolio analysis outcome

No calls included in time costs (time range 3 months)															
	SI A	SI B	SI C	SI D	SI E	SI F	SI G	SI H	SI I	SI J	SI K	SI L	SI M	SI N	SI O
(mins)	2025	1905	220	75	5685	20	35	1505	15	640	855	2905	520	5015	140
RCSOT	0,093924	0,088358	0,010204	0,003479	0,263683	0,00092764	0,001623	0,069805	0,000696	0,029685	0,039657	0,13474	0,024119	0,232607	0,006494
RCRANK	-1	-1	1	1	-1	1	1	-1	1	1	-1	-1	1	-1	1
RRSOT	0,052512	0,165234	0,010425	0,003334	0,0564	0,00501473	0,005784	0,08028	0,002507	0,032325	0,06211	0,174935	0,02663	0,318528	0,003983
RRRANK	1	1	-1	-1	1	-1	-1	1	-1	-1	1	1	-1	1	-1
SEG/PORT	II	II	III	III	II	III	III	II	III	III	II	II	III	II	III
Calls included in time costs (time range 3 months)															
	SI A	SI B	SI C	SI D	SI E	SI F	SI G	SI H	SI I	SI J	SI K	SI L	SI M	SI N	SI O
(mins)	2192,283	1963,033	265,4	75	5758,033	22,8666667	35	1677,533	15	647,2	915,5667	2905	632,15	5149,25	140
RCSOT	0,097899	0,087662	0,011852	0,003349	0,257132	0,00102114	0,001563	0,074912	0,00067	0,028901	0,040886	0,129726	0,028229	0,229946	0,006252
RCRANK	-1	-1	1	1	-1	1	1	-1	1	1	-1	-1	1	-1	1
RRSOT	0,052512	0,165234	0,010425	0,003334	0,0564	0,00501473	0,005784	0,08028	0,002507	0,032325	0,06211	0,174935	0,02663	0,318528	0,003983
RRRANK	1	1	-1	-1	1	-1	-1	1	-1	-1	1	1	-1	1	-1
SEG/PORT	II	II	III	III	II	III	III	II	III	III	II	II	III	II	III

The results are presented in two different tables. The partner companies are referred as SI A to SI O. The costs of the relationship are presented in RC_{SOT} (*relationship costs, share of total row*) in minutes conducted on each partner. The relative value of partner company revenue is presented on row RR_{SOT} . The rows RC_{RANK} and RR_{RANK} are representing an indicator value where -1 is indicating that the relative value is below the median of partner base total value and +1 is indicating that the value is above the median of the corresponding value. The SEG/PORT row represents the portfolios where each partner company is based according to indicator values of RC_{RANK} and RR_{RANK} . The portfolios are explained in more detail in the next chapter 3.6.2.

When comparing the segmentation, i.e. portfolio (SEG/PORT) rows when the phone calls are included (the table below) and in the one where there are not phone call costs included (the above table), it can be seen that the phone calls do not affect at the selected time period into the SI portfolios. The notable finding here is that, when compared the results in STEP 1, the portfolios are changed. It can be seen that the time frame, i.e. three months compared to 12 months' time period changes the results of portfolio analysis. Thus, one key issue to be considered is the time interval for conducting the portfolio analysis.

3.5.2 STEP 1 -results

Table 4 presents the result of step 1, where the data was collected from different sources of the case company activity records and partner revenues from previous fiscal year.

Table 4. The partner portfolio based on recorded data (“retrospective”)

	The Partner companies														
	SI A	SI B	SI C	SI D	SI E	SI F	SI G	SI H	SI I	SI J	SI K	SI L	SI M	SI N	SI O
RR	0,032	0,302	0,019	0,015	0,076	0,012	0,004	0,058	0,049	0,002	0,015	0,059	0,042	0,296	0,017
RC	0,039	0,146	0,145	0,032	0,053	0,103	0,004	0,056	0,103	0,026	0,037	0,062	0,024	0,135	0,035
CRP	-0,01	0,16	-0,13	-0,02	0,02	-0,09	0,00	0,00	-0,05	-0,02	-0,02	0,00	0,02	0,16	-0,02
Port- folio RR- RC	III	II	IV	III	II	IV	III	II	II	III	III	II	I	II	III

In table 4 the partner companies are referred with “SI” and characters A to O. The value RR is the share of the whole partner base revenue i.e. it is a relative value of the revenue. The RC is calculated based on the decided cost driver pools as relative to whole partner base. The customer relationship profitability is calculated on row CRP. The dividing in to portfolios is decided based on the median of RR and RC values. The partners whose RR value is below the median of the RR are in the portfolios III or IV and partners with values higher than the median are in portfolios I or II. The corresponding portfolios based on the RC values yield into portfolios I or III with the values below the median and II and IV for those above the median. The portfolios are labelled (Storbacka, 1997):

- I. **Protect portfolio**, this group needs to be protected from the rivals by e.g. growing the barriers of changing vendors. The characteristics of the partner relationships in this portfolio are high revenue and low costs, thus, the partners in this portfolio are highly profitable.
- II. **Develop portfolio**, this group is the most interesting viewed by its potential for enhancing the profitability. Partners in this portfolio are highly active in the relationship with the case company, thus, can be easily affected and developed.
- III. **Change portfolio**, the partners in this group are requiring intervention to be able to change their value creation functions and to activate them. Characteristically partners in this portfolio are low in both revenue and cost thus they are passive.

- IV. **Force Change or Drop portfolio**, the partners in this group are causing mostly costs and do not create revenue to the case company. If the partners in this group do not increase in means of profitability in near future the termination of the partnership should be considered. The partners in this group should be assessed more carefully and take into the account e.g. their relationship length i.e. new partners cause more costs in the beginning of the relationship but can possibly create revenue within time.

3.5.3 STEP 2 -results

Second step in CSA was to test and build credibility in the step 1 results that were built on quantitative data. Moreover, the aim was to test possible plausibility between the customer related company records and the perceptions of the employees. The reliability of the case company data on customers was affected by scattered nature of the data i.e. it had to be tested that the data sources available were enough to conduct a customer portfolio analysis and overcome the gaps in the available data.

To test the plausibility, the quantitative data was tested against the views of the RMS and BDM regarding the customer value and perceptions. Respondent stated their perceptions of the portfolios in step 2, therefore, the step 1 portfolios were combined with step 2 results. Table 5 illustrates the differences between step 1 and 2.

Table 5. The partner portfolios based on the qualitative responses from the questionnaires compared to step 1 result.

	The Partner companies														
Portfolio	SI A	SI B	SI C	SI D	SI E	SI F	SI G	SI H	SI I	SI J	SI K	SI L	SI M	SI N	SI O
I		▲		▲	▲				▲ ◇			▲ ◇	▲ ■	▲ ◇	▲
II		◇ ■	▲ ◇		◇ ■			◇ ■	■			■	◇	■	
III	▲ ◇ ■			◇ ■		▲ ◇	▲ ◇ ■	▲		▲ ◇ ■	▲ ◇ ■				◇ ■
IV			■			■									

Key: Respondent A = ▲, Respondent B = ◇, Step 1 results = ■

There can be made some initial conclusions from table 5 results. It can be seen that step 1 has some level of plausibility and it is following the views of the case company staff. The justification from the questionnaires on the selections introduces some aspects that can explain the differences between the quantitative data and qualitative data based portfolios. For example, “SI C” has been placed in “Drop” portfolio based on quantitative data and seen more profitable in the qualitative responses. “SI C” is a customer that is in the beginning of the relationship with the case company. Comparing the length of relationship of “SI C” to SI’s “B” and “N”, who have been partners for decades, leads into conclusion that the longevity factor, i.e. the length or the maturity of the relationship has to be considered when assessing the profitability of the relationship. Hence, it might be necessary to decide some time period with the newly established partnerships, where the new partners are omitted from the portfolio analysis, to avoid bias in the outcome.

The second notable thing is that respondents view the partner base more based from non-monetary point of view, i.e. they assess the relationship by emphasizing more on the intangible factors, such as, feelings of customer loyalty, assumed potential to enhance the sales based on the discussions with the customer revealing future plans, customer stated satisfaction and established relationship bonds. For example, exchange of favors, leads into a circle of trust that translates into satisfaction and commitment, or even loyalty. The elements listed can be used to explain the gap between quantitative and qualitative results. The results regarding SI C is an example of this. Both respondent A and B had established personal bonds with the managers of the SI C, conducting tasks that were not precisely in the scope of their duties. Based on the special treatment, they got positive feedback from SI C related to the case company support activities and generally the satisfaction stated by the customer was high.

Hence, it can be stated that the customer characterization cannot rely only on quantitative data, the qualitative data has more rigor and deeper insights in the reasons behind the customer profitability. Step 1 relied on historical data and did not interpret the potential of the relationship. Step 1 results combined with step 2 data revealed more valid results that can be used to define customer portfolios.

3.5.4 STEP 3 -results

Combining the intangible factors in to the table 2 results, the initial partner portfolio that was decided in the workshop (Step 3) is presented in figure 5.

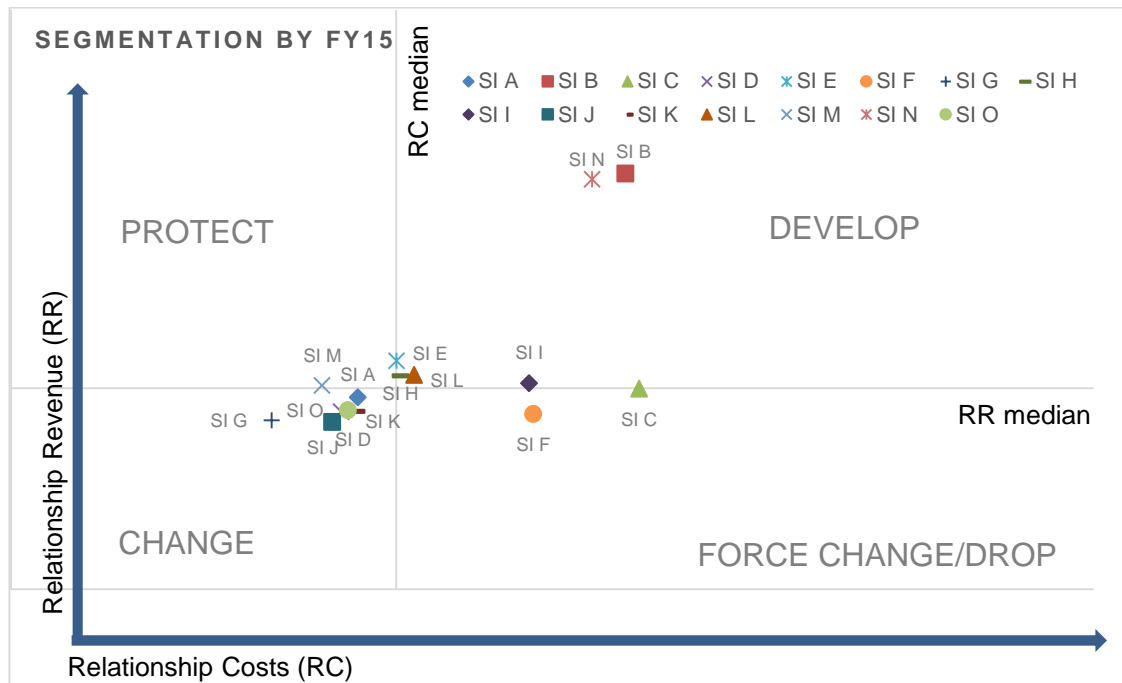


Figure 5. The initial partner portfolios with corrected values of table 2 according to step 2 results and interpretation in workshop.

Respondent A has an exaggerated positive aspect of the customer base which can be seen in the results shown in table 3. Respondent A did not consider nor recognize all activities that are seen as costs in the relationship, thus, in his point of view most of the partner companies were in the protect portfolio. He viewed the partners as independent both by their engineering skills and sales skills. During the discussion in the work shop and clarifying what parameters are representing costs in the support functions, respondent A changed his views to match the overall situation.

3.6 Conclusions of current state analysis phase

Current state analysis leads into three main topics that are necessary to be investigated more deeply in next phase of the research. The next phase is to establish a conceptual model for assessing the partner relationship profitability and performance of the involved parties. The assessment of the customer profitability in the current state analysis was

merely based on internal views of the case company related to relationship performance and there was no external perspective included, i.e. customer perceptions, to assess the performance of the support functions. Such factors as the productivity, effectiveness and meaningfulness of the support functions viewed from customer point of view was not considered in the results.

Equally important dimension to the internal retrospective aspect of the relationship performance assessment is the external affect i.e. the customer perceptions of the support functions. It is vital to consider the customer feedback as customers are the ultimate judges of the support function performance and quality. The customer feedback is required to be able to develop the support functions by means of customer expectations and to learn the customer motives and behaviors, i.e. "to do best what matters most to the customers" (Hill and Alexander, 2006: 9).

The interpretation of carrying out the current state analysis leads into the conclusion of next main issues:

The first issue is related to data gathering and accuracy in the CRM system. To be able to assess the costs resulting from the customer demands towards the support functions, the relevant data needs to be easily available and the process of gathering the data into the system needs to be reliable. Furthermore, the need for grouping the support encounters into different types of groups of activities is important in means to highlight the specific factors that correlates with the profitability.

The second issue is to identify the relevant factors that lead into profitable relationships and how should these factors be measured. The factors that yield into better revenue and lower costs of the relationships are based on customer perceptions, thus, the concepts of identifying customer perceived value of the services, products and support needs to be clarified and these need to be linked with the internal profitability calculations.

The third issue is to identify the factors that contribute into the relationship value, quality, length and profitable behavior, for example, word-to-mouth marketing conducted by the customers. This topic is about relationship structures, i.e. which element of the relationship correlates on what element. Relationship structure links the internal aspect and the external customer perceptions (Storbacka, 1997). Thus, deeper knowledge needs to be established in next phase of the research on the following main issues:

Table 6. The main issues in partnership performance assessment according to CSA

Issue	Related Topic	Explanation, what needs to be investigated
Service function activities and relationship cost drivers to internally assess the customer performance by portfolio mapping.	Activity Based Costing (ABC)	<ul style="list-style-type: none"> The concepts of cost drivers in the relationship enabling functions needs to be defined. The process of collecting conducted activities into the CRM system needs to be decided and further more clarified. The relevant encounter types i.e. main categories of the activities has to be carefully assessed and weighted relative to overall costs of the relationships. The activities needs to be linked into concepts of relationship elements
The intangible factors that affect the relationship dynamics and performance i.e. the elements and structure of the relationships.	Elements and attributes of relationship structures	<ul style="list-style-type: none"> The relationship elements (intangible factors) needs to be named and the correlation to relationship profitability needs to be investigated. The relationship structure with various indicators of relationship value needs to be clarified.
Effects of customer perceived value on partnership performance.	Customer perceived value	<ul style="list-style-type: none"> How factors such as satisfaction towards case company activities and performance of the support functions affect the customer perceived value. Decide the methods of collecting the customer feedback and how to effectively apply the data on performance indicators and profitability calculations.

The issues presented in table 6 suggests that the focus of literature review should be on topics, such as, customer relationship management with a focus on B2B partnerships, customer centricity, relationship marketing such as marketing by 3 R's, activity based costing (ABC) and relationship value with the focus on customer satisfaction and loyalty surveys. Thus, the main theme for developing the sufficient theoretical background to build the conceptual framework of relationship performance assessment is related to CRM and relationship marketing (RM) literature.

3.6.1 Initial selection of the test case partner companies

The assessment process used in steps 1 to 3, to assess the partner profitability and the portfolio analysis, can be used to distinguish the potential customers from the unprofitable ones. Moreover, the results can be used to decide the SI companies that are going to be used in the co-creation and testing phases of the thesis output along with the case company internal stakeholders.

As these companies are going to be used as co-creators of the assessment model, to have a critical input that is the customer point of view, there are certain requirements that needs to be fulfilled. The co-creation will include workshops, face-to-face meetings and

interviews, thus, the current relationship with the companies needs to be in a level where the co-operation is suitable for both parties in a way where the dedication, time and the willingness to co-operate is sufficient. Furthermore there has to be a sufficient opportunity to enhance the relationship profitability and value.

Initially, the most suitable test case companies according to the portfolio analysis and assessment based on current relationship quality and opportunity to influence on the relationship profitability are companies labeled **SI C** and **SI M**.

SI C is selected to be the test case A because of their potential to enhance the value creation functions. Moreover, the relationship with the case company is open for communication and there is mutual trust. SI C has a stable local market and they do not have many competitors in their region, which helps them to influence the end user demand, thus, it is a fruitful ground to build services and use other meaningful means to develop the relationship.

SI M, test case B is in the beginning of its relationship with the case company and it has excellent potential to be more profitable based on its existing knowledge of the case company products. Moreover, it has an encompassing end user customer base, thus, its knowledge resources compared to the potential for increasing sales is excellent. The relationship to SI M needs to be enhanced and the challenge is to affect the “share of the wallet” of the customer as they are working with other vendors alongside with the case company.

4 The concepts of relationship profitability and value assessment

This chapter is going to explore the literature to find various concepts that are vital for developing a partnership performance assessment process. The exploration starts with relevant concepts of customer relationship management (CRM) and explaining the concepts that are required for a company to be identified as a customer centric organization. Moving from the grounding concepts to the first main topic which is to explore the concepts of assessing the relationship costs and revenue yielding into relationship profitability. This topic is explored from the aspect of activity based costing (ABC) systems. The second main topic is about assessing the value of the support functions and products from the customer point of view where the concepts of measuring the customer satisfaction and customer perceived value are revealed. Finally, in the third main topic, before the introduction of the conceptual framework, the link between profitability and value is discussed based on the relationship structure by focusing on the concepts of service-profit chain and satisfaction-loyalty-profit chain.

4.1 CRM and Customer Centricity

The customer relationship management has a wide range of interpretations in the literature. Some are referring to CRM strictly from technology point of view, i.e. CRM systems and database marketing, others refer to concepts of managing the value of the relationships and relationship marketing (Atul and Jagdish, 2001). The complex conceptual structure of CRM can be divided into two main categories that are strategic and operational aspects (Richards and Jones, 2008), in which the strategic approach to CRM is about creating value for the customers and the supplier by acquiring, retaining and partnering with the customers. Whereas the operational approaches are emphasising the various technologies and processes. Yet, all different approaches of CRM have an ultimate goal of creating a customer centric organization that creates value both for the customer and for the supplier.

Regarding the thesis scope, the concepts of CRM, relationship marketing and customer centricity are discussed to ground the understanding on, first, why it is vital to identify the attributes that yield into costs of the relationships, and secondly, why it is necessary to understand the customer perceptions towards the provided support functions and ser-

vices. Thus, in the context of the thesis, the CRM is discussed in detail from the processes and systems point of view and more generally from the aspect of partnership strategies.

4.1.1 Customer relationship management and relationship marketing

The concepts of marketing the services and promoting the products where every function of the company were involved was developed in the 80's. This line of thinking has lifted the customer relationships in the centre of the discussion and led into the conclusion that most if not even every department is involved in delivering the customer experience and having some level of interaction with the customers (Storbacka and Lehtinen, 2001: 5). The customer relationship management evolves from the thought of delivering excellent customer experience in everything that the company does. Customer relationship management seeks to maximise the profitability of the interaction with the customers through cross-functional, customer driven and technology-integrated business processes that includes the whole organisation (Chen and Popovich, 2003).

The essence of efficient deployment of CRM is the coordination and integration between the different functions. According to Atul and Jagdish (2001) it is important to establish deeper co-operation with the customers and generate profound understanding on the customer behaviours, to be able to develop customer-centric processes and strategies. To achieve this, the integration between different company functions is vital. The integration between the functions is established with the help of CRM strategies, systems and processes.

The deployment of CRM leads into a shift from traditional marketing towards relationship marketing. Atul and Jagdish (2001) argues that CRM is not distinguished in literature from relationship marketing, but the topic relationship marketing leads to some more specific concepts in evaluating the relationship profitability and value. Whereas, traditional marketing seeks to create value for the masses of customers, relationship marketing on the other hand, even if it is based on CRM systems and processes, emphasizes the individual customer relationships. In traditional mass-marketing the customer base is segmented by their needs and the products and services are designed to meet the demand of most of the customers in the segment. Then again, in relationship marketing, the decisions made by the managers are based on individual customer needs to build competitive advantage (Chen and Popovich, 2003; Kumar and Reinartz, 2012).

Storbacka and Lehtinen (2001) view CRM as a shift from traditional marketing of products and services towards customer centric marketing i.e. relationship marketing. They view that the difference between these is a shift in a view point where the traditional value distribution is changed into mutual value creation between the supplier and customer. The value creation, according to Storbacka and Lehtinen (2001), is not about maximising the revenues on single transaction moreover it is about retaining the customers. Storbacka and Lehtinen (2001) suggests that the customer value creation development should focus on building lasting relationships and not to concentrate on maximising the revenues based on single exchange. By shifting the focus, the competitive advantage is not based on price, it is rather relying on helping the customers to create value to themselves by own. The way the provider should aim to help the customers to create value to themselves, Storbacka and Lehtinen (2001) states, that it is about integrating the value creation processes of supplier and customer by using suitable relationship strategies, furthermore, it is about thoroughly understanding the value creation process of the customer.

Chen and Popovich (2003) follow the views of Storbacka and Lehtinen (2001) and they state that CRM is a business model that is enterprise-wide and customer-centric. Hence, it must be organized around the customer. Moreover, it demands redesigning of the core business processes based on the customer perspective and it requires customer feedback. They also suggest that, by using CRM in most efficient way, several studies have proven that the revenues have increased and the costs have fallen, yielding into better profitability. Moreover, deploying the CRM in effective ways, i.e. assessing such parameters as customer loyalty, retention and profitability, yields better customer satisfaction. The CRM approach that identifies the need to balance the company and customer interests can be called marketing-driven CRM (Kumar and Reinartz, 2012). Kumar and Reinartz (2012: 25) writes: "Marketing-driven CRM is not based only on technological solutions but it is supported by them. It is a complex set of activities that, together, form the basis for a sustainable and hard to imitate competitive advantage: the customer-centric organization."

As the marketing aspect moves towards relationship marketing from the traditional focus on marketing by 4 P's, i.e. product, price, promotion and place, the aim of the marketing is based on customer perceptions and the focus is on delivering on targets such as retention, referrals and related sales; the 3 R's (Heskett et al., 1997). The marketing by 4

P's is concentrating on the supplier side and ignores the customers, prospects and even markets (Dev and Schultz, 2005). Dev and Schultz (2005) argue that if only the 4 P's approach is used, the methodologies of this approach do more harm than helps the marketing in 21st century turbulent environment. Following on this thought, it is vital to understand the 3 R's:

- **“Retention** is the continuing, active relationship with a customer that yields a stream of revenue from the sale of the initial product or service. This stream of revenue becomes more and more profitable as existing customers become easier to serve with less need spend ‘get acquainted’ marketing effort on them” (Heskett et al., 1997: 61). Thus retention explains the intention of the customer to buy again i.e. it is linked to customer commitment and, furthermore, it is an indicator of customer perceived satisfaction on past purchases and experiences of supplier services and products (Hill and Alexander, 2006). Moreover, retention indicates the level of rivalry between the supplier products and competitors’ products, the level of barriers to switch vendors and the level of perceived risk (Kumar and Reinartz, 2012).
- **Related sales**, i.e. share of wallet, is the share of customer overall spending within all vendors it uses. It is a possibility to sell new products and bundled price products to existing customers. Related sales is relevant because it is much cheaper and easier to sell to existing customers than to acquire new customers to sell to (Heskett et al., 1997). Related sales is an indicator of customer commitment because the increase in the related sales can be interpreted as increase of customer willingness to buy from the same supplier (Hill and Alexander, 2006). Moreover, by selling more to one customer expands the “share of wallet” which then ultimately yields, when combined with retention and commitment, into increase in the values of concepts such as Customer Profitability (CP) and Customer Life Time value (CLV) (Heskett et al., 1997; Talaba, M., 2013).
- **Referrals**, referred also as word-to-mouth recommendation behavior of customers. Referral also indicates the level of commitment (Hill and Alexander, 2006). Customers, who are committed and satisfied, will talk to other potential customers and existing customers in favorable tone of the supplier, thus, it is a highly important driver for supplier marketing efforts, moreover it does not add costs in marketing functions.

The above indicators are in the essence of the concept of satisfaction-profit chain (SPC) which then again is closely linked to CRM (Kumar and Reinartz, 2012). The concept of SPC is discussed more thoroughly in the chapter where the relationship structure and indicators are explained more deeply.

To conclude the part of CRM and Relationship marketing, there can be found critical concepts affecting both relationship value and profitability. These concepts presented in this chapter regarding the outcome of this thesis are, first, the assessment processes needs to be grounded on concepts of customer centricity by viewing the customer relationships individually, and secondly, measuring the customer relationships by their value, profitability and by factors such as share of wallet, retention and referral activity of the customers. Furthermore, following the views presented on the CRM and relationship marketing, it is necessary to shed light on the question, what is a customer-centric organization and how can the customer centricity be achieved. Therefore, the following subheadings will explore the concept of customer-centricity in more depth.

4.1.2 Customer-centric organization and culture

Customer relationship management focuses on individual relationships between the supplier and the customer. It requires that the company is aligned around the customer and not focused in organising around the products. When a company is aligned around the customers, it can be called customer-centric (Chen and Popovich, 2003). Chen and Popovich refers to a work by Seybold Group (Seybold, cited in Chen and Popovich, 2003) that lists five steps in designing a customer-centric organization,

- Make it easy for customers to do business,
- Focus on the end customer,
- Redesign the front office and examine information flows between the front and back office,
- Foster customer loyalty by becoming proactive with customers,
- Build in measurable checks and balances to continuously improve.

The goal for customer-centricity is to develop individual relationships by affecting the customer retention, commitment, revenue and related cost in a way that supports the

customer perceptions and builds on the longevity of the relationship (Storbacka and Lehtinen, 2001). The key to develop customer relationships is to enhance both the value adding functions of the customer and the supplier with a continuous process. Recurrent assessment of the relationship is important to be able to develop relationship strategies that increases the relationship profitability, i.e. adds value through increasing revenues and decreasing customer related cost, thus, it is a change process in systems, processes and people (Chen and Popovich, 2003).

4.1.2.1 Customer-centric organization

In the past product-centric companies have been focusing their strategies on enhancing manufacturing and logistics and the service companies have been keen to enhance the quality of their services (Bolton, 2004). Above all, there is a cultural difference between product- or service-centric organizations. Bolton (2004) states that the customer centric organization needs to know its customers and treat them as they expect and it has to foresee customers' needs and respond positively towards their actions.

The difference between customer-centric organizations and product-centric organizations is well described by Mitchell (2004) in his article. He writes that customer centricity is achieved by building a different perspective of the company functions and mainly gaining understanding about how it makes money and how it organizes itself. He claims that most companies view themselves as "portfolios of products looking for customers". Their focus is to organise around producing products and services in most efficient way and all their internal metrics are based on a concept of a "profitable product". Conversely, Mitchell describes that a customer-centric company sees itself as a portfolio of customers that seeks for value. Customer-centric company is not structured around product lines, but instead it builds itself around customer segments. The performance measures are linked to customer profitability in the segments and not on product management, but more likely on category management actions.

Keogh (2009) emphasizes the importance of customer alignment throughout the whole organization. He lists two key points to be more aligned with the customer, where the first one is, to focus on rediscovering the priorities for their top clients, and the next one is, to learn how their customers are assessing their performance against these priorities, i.e. the key is to learn to know your customers. Most importantly, the main objectives

Keogh lists for the organization to be customer-centric are, most meetings has to have customer experience as top priority and most initiatives has to aim to improve the customer experience.

Bolton (2004) writes that the customer-centric organization focuses on providing high quality experiences to the customers continuously, in consistent manner over long time of periods. For the company this means, that the organization is required to provide high quality experiences within all customer encounters, throughout every organizational function and from every part of the organization.

4.1.2.2 Customer-centric culture

When referring to customer-centric organization it is more dependent on the tangible concepts such as processes, functions, structures and actions that are seen from the customer point of view. Then again, when referring to customer-centric organizational culture the focus is more on people's tacit factors such as their minds, feelings and emotions. Bortolotti et al (2003) describes organizational culture as a code of conduct that the organization employees' share. It is a mix of items, values, beliefs and underlying assumptions of appropriate behaviours that are thought to be shared throughout the organization. The managerial tools that could be used to affect these are, honest and meaningful communication, creating positive and rewarding atmosphere, and importantly, creating a sense of trust from top to down. To put this in another way, there is a phrase from Kotter (2013):

“Leaders who know what they are doing will aim for the heart. They connect to the deepest values of their people and inspire them to greatness. They make the business case come alive with human experience; they engage the senses, create messages that are simple and imaginative, and call people to aspire.” (Kotter, 2013)

As customer-centric business processes are vertically aligned throughout the whole organization the whole staff should be learned to listen to the customer, respect the customer and build customer's trust (Bolton, 2004). To achieve this, the organization needs to become a learning organization that trains its frontline employees to listen to the customer, create emotional bonds with the customers and report the customer perception of the relationship value.

4.1.3 Changing organization customer-centric

Changing the culture and the organization into customer-centric is a task that will require time, and both, staff and management dedication with multiple cycles of redesigning, actions and learning in the change project, i.e. it depends on facilitating structures that support continuous change (Lawrence et al., 2006). The change projects success is about to be able to influence employees' hearts and minds and to create a true sense of urgency (Kotter, 2013). The change of employees' hearts and minds, thus, depends on continuous change. Circle of continuous change is grounded on a process where the flow of different phases follows each other and does not have a starting point nor an ending (Lawrence et al., 2006).

Combining the circle of continuous change into the elements of customer-centricity yields into a recurrent process of continuous measurement of customer relationship value and assessment of customer base profitability, which are the fundamental concepts to keep track on opportunities and threats created in the realm of the customers. Customer perceptions are the actual benchmark values to be used in continuously changing the strategies, behaviours, processes and culture to be fit in customer demand, i.e. turn the organization more customer-centric in all it does (Storbacka and Lehtinen, 2001 ; Bolton, 2004; Mitchell, 2004; Heinen, 2006).

Heinen (2006) argues that, if the company wishes to succeed in building a customer-centric environment the focus should be on tracking the details, measure the details and reward the staff based on performance that meets the business goals and the voice of the customer. Using the voice of customer as a measurement for quality encourages the employees to deliver better service to the customers because they are measured directly for their output for the customers and, thus, it helps them to learn and develop their skills on every encounter. The key is to link the outcomes with the different encounters, and the employees behind the customer experience.

To emphasize the integrative concept from the various concepts of customer-centricity and development of customer-centric culture, is the need for continuous development with planning and target setting, learning, action and assessment, to start a new cycle of change or a development initiative. But as the scope of the thesis is to develop an assessment process model to be used in evaluating the profitability and value of the partnerships, the organizational culture change process itself will be left out of the context.

Nevertheless, the ultimate goal for the case company is to achieve a customer-centric culture and the outcome of this thesis will on its part contribute to this huge effort.

The next chapters will introduce the concepts to build the cost assessment part, they and will frame the needed concepts of designing surveys on customer perceived values. Most importantly, the elements of the supplier–customer relationships are going to be revealed to be able to bind the external influence with the internal metrics of the relationship value and profitability, furthermore, these will underline the relevant attributes that are required in developing the partnership strategies and action plans to enhance the relationships.

4.2 Activity Based Costing (ABC)

Available company resources are scarce, therefore, it is important to identify the most profitable and potential customers where the resources should be focused on. Traditionally the costs for functions such as technical support, marketing and sales have been linked to product sales revenues and the expenses of producing the products. Furthermore, there has not been any accurate allocation of the costs by customer. Moreover, the costs have been divided into different support functions based on average assumptions calculated from the production expenses. The resources for support functions and marketing budgets have been seen as indirect and fixed costs, i.e. overhead costs, which are required but not seen as a chance to grow the profitability of the business. As companies have started to deploy customer-centric strategies with diverse product portfolios and, thus, the need for special services have increased to add value to the product portfolios, the overhead costs has grown to be a significant share of companies' costs. Hence, the emphasis of presales and aftersales activities in cost analysis has increased (Cokins, 2006; Kaplan and Anderson, 2007).

The expenses has to be traceable by service function and the customer to be able to allocate the costs by customer. Activities that are conducted on one customer consumes the resources, thus, drives costs. Different customers need different amount of support and consume services in different way. The key to increase the company profits is to identify the customers that are profitable and those who are not. Separating the profitable customers from non-profitable ones allows to allocate the scarce resources on the most potential customers', i.e. the key is to effectively manage the customer relationships to grow the sales profits. The Activity Based Costing system (ABC) can be used to enhance

the CRM decisions and build reliable RM strategies, as it reveals the costs to serve on each customer (Cokins, 2006).

For a company to be competitive, the company has to identify its cost structure and the sources of its profits. Customers with highest sales are not necessarily the most profitable ones (Cokins, 2006). Traditional cost analysis might show that all customers are profitable, whereas the reality is that there is only few customers that are profitable, earning 150 to 300 percent of the profits and the most unprofitable ones loses 50 to 200 percent-age of the profits (Kaplan and Anderson, 2007). To avoid such misinterpretation, the use of ABC system should be considered.

Activity based costing solves the problem of inaccurate allocation of overhead costs by linking the support costs on company shared activities and assigning the cost caused by conducting these activities on orders, products and customers (Kaplan and Anderson, 2007). The basic philosophy of ABC is that products and services consume activities and activities consume resources and the use of resources creates costs (Gunasekaran, 1999). Creating understanding on where the costs are created and where the profits are gained, the profitability information can be used in better decision making, moreover, to identify the root causes of the problems and reveal opportunities to enhance the customer relationships (Gunasekaran, 1999; Kaplan and Anderson, 2007).

4.2.1 Conventional ABC

The activity based cost systems were introduced in mid-80. The ABC systems were result of increased competition and the need for more accurate information about the costs of processes, products and customers. These were not available from traditional external financial reporting systems. External financial reporting systems assume that the overhead costs vary with the amount of products produced, whereas, ABC systems made it possible to drive the indirect and support expenses to activities and processes and from these into products, services and customers. Therefore ABC does not recognize overhead costs as fixed costs related to production units (Kaplan and Cooper, 1998).

According to Kaplan and Cooper (1998: 79) ABC systems tries to answer the questions:

- What are the activities conducted by the available resources?
- What does it cost to conduct the activities and processes?
- Why does the organization need to perform the activities and processes?
- What are the amounts of activities required by products, services and customers?

Hence, ABC systems can be seen as an economic map of the expenses based on conducted activities and it can be used as value stream map to identify the critical issues in delivering value for the customers (Cokins and Lawson, 2006).

ABC costing systems extend the traditional financial reporting systems by adding more precise information of the various tasks of production and services. By linking the expenses of the resources that are required to produce the diverse products or services, the costs can be aligned in more comprehensive manner on diverse products, services or customers. The traditional financial reporting systems allocates the overhead costs to production cost centers by using random base variables, such as, headcount or labour hours when dividing the overall expenses on cost centers. Conversely, ABC system views the products, services and customers as cost objects that are the cause of the expenses. Cost objects are traced into different activities that they require and the activities are linked into different resource expenses categories (Kaplan and Cooper, 1998).

Figure 6 presents the structure of Activity Based Cost system.

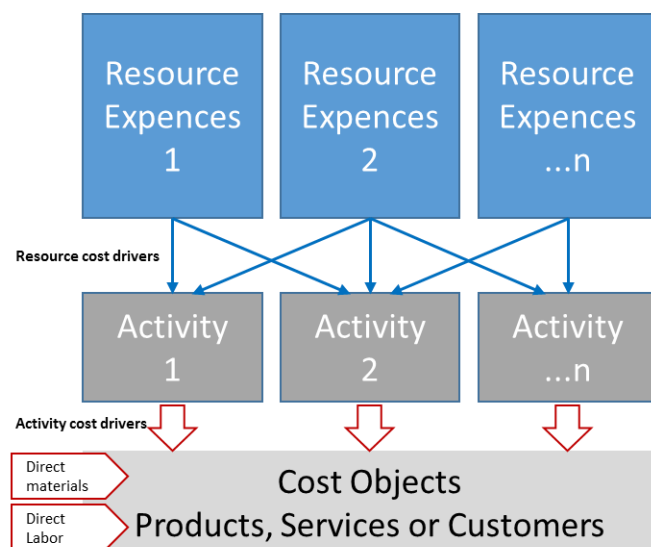


Figure 6. Structure of ABC system (Kaplan and Cooper, 1998: 84).

The resource expenses, such as, salaries, machine time, operating supplies and electrical power are used when the ABC system is viewed as cost assignment tool. Another way to view ABC is to view the cost alignment from processes aspect (Cokins and Lawson, 2006). When ABC is viewed as accumulation of different activities in the processes or functions, ABC system can be used for measuring performance and manage the processes. For example of process based ABC system the next simplified description would suite, when a customer makes an order, the activity to process the order is consuming resources of salesforce in conducting special price offer on an order, frontline staff in logging the order with order codes into the company ERP system, manufacturing in production of the ordered products and in procurement to dispatch the order. The resource expenses differ between functions of salesforce, frontline, manufacturing and procurement, i.e. the costs per activity, which is resource cost driver, is different for all functions in the example. The resource expenses represent the total sum of expenses for a business (Kaplan and Cooper, 1998).

The activities can be referred as activity cost pools (ACP) that are the sum of activities which are consuming the different resources (Gunasekaran, 1999). As the activities differ by their cost because of the different allocation of the consumed resources defined with resource cost drivers, conducting an individual activity yields into individual expense. Hence, the activities has to be mapped and assessed by their impact on overall expenses, this is to decide the activity cost driver rates (Kaplan and Cooper, 1998; Kaplan and Anderson, 2007). In the latter example of order processing, the cost driver for the activity would yield into sum of estimated costs of conducting the activity for every function that is involved in the order processing.

Cokins and Lawson (2006) explains the drivers as “resource drivers for employees, which reflect the time the time they spend performing work activities” and “activity drivers are a measure of the output of an activity”. Hence in the latter example of the sales order processing, the activity driver for the frontline would be the amount of activities conducted. The cost drivers are the parameters to explain the performance issues in ABC analysis and, as the cost drivers are cross-functional, they effectively highlight the areas of improvement.

4.2.2 Designing the ABC system

Cokins and Lawson defines the ABC system in two different ways where the first one is the cost assignment view and the second aspect is called process view. The framework is presented in figure 7.

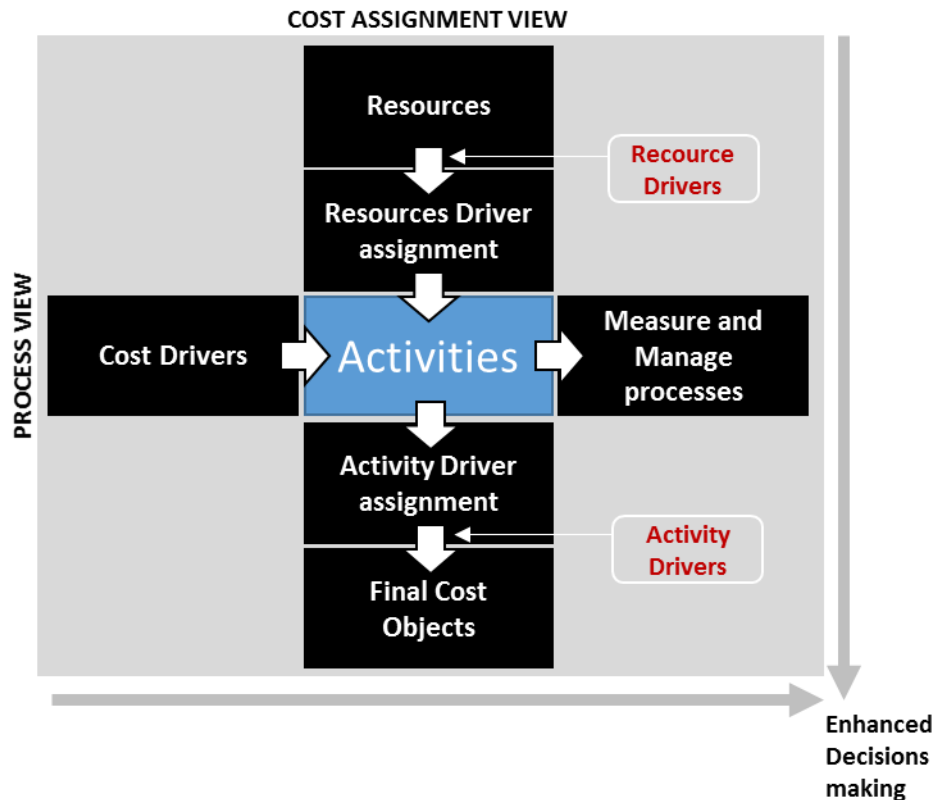


Figure 7. The ABC framework of Cokins and Lawson (2006).

The scope of the thesis concentrates on the costs assessment of the case company enabling and support functions caused by managing the customer relationships, thus, it focuses in this context on the processes aspect of ABC. Hence, the designing of the ABC system is clarified reflecting this point of view. Based on work by Kaplan and Cooper (1998), Gunasekaran (1999) and Cokins and Lawson (2006), the next primary points are highlighted in designing the ABC system:

1. Define the scope of the ABC system

The first phase in developing the ABC system is to determine the objectives of the ABC system and frame the system in means to decrease complexity and narrow the number of activities into comprehensive level. The important outcome

of this step is to assess the benefits of initialising the ABC system compared to the costs of using the system, i.e. the more accurate the system is, the more it costs to be utilised, hence, it is important to balance the requirements and the outcome to satisfying level.

2. Identify the activities and develop an activity dictionary

The second step is to identify the numerous activities the employees, moreover, different functions conduct in their daily work. The activities that are to be selected and measured should be clearly defined in the scope of the ABC system. For instance, if the scope is strategical, such as, to enhance relationship value and dividing the customers into different portfolios based on their profitability, the activities and cost drivers do not need to be precisely defined. Moreover, the emphasis is on the major tasks and events that, most importantly, are uniform throughout the customer base. To meet the wanted outcome, it is enough to assign the activities broadly, but the costs instead, need to be accurately aligned on cost objects.

3. Determine the expenses related to activities

The third phase is to determine the type of resources needed to conduct the activities. Both step 2 and step 3 can be estimated and mapped with help of surveys and questionnaires targeted on the staff that are the base of generating the resource pools or categories. Resource pools are used to assign the expenses by jobs or functions that have their specific share of the whole expenses. If the resource pools are divided by the competence requirement of the activities, as functions to conduct activities, the costs determined by the activity cost drivers could be used in performance analysis of a specific function. When the costs are combined with the revenues, these become the building blocks of the value that the company creates for their customers.

4. Identify and select the Activity Cost Drivers

The activities consists of activity cost drivers that yield into total cost of individual activities. Activity cost drivers are variables that explains the change in activity costs and, furthermore, enlightens the behaviours behind the activities, such as, increment in technical support demand. The Activity cost drivers are the link between the expenses and the cost objects. Activity cost drivers measures the frequency and intensity of the demand placed on activities by the cost object (Miller,

sited in Gunasekaran, 1999). When the cost object is seen as a customer, the ABC system in this context, can be used in defining the customer profitability. The individual customer cost is a calculation of the total cost of serving the customer. Customer cost consists of two different components, the cost of manufacturing the products purchased by the customer and the cost of supporting the customer (Turney, cited in Gunasekaran, 1999). Hence the Activity cost drivers are tasks and events caused by supporting the customers in the context of this thesis.

The intention and goal for establishing ABC system should not be the most accurate cost assessment system but, moreover, it should focus in delivering more rigorous data on different functions performed in the company. It is not the intention of the ABC system to cause enormous expenses caused by the use of the system, thus, it is important to balance the accuracy of the measurements with the intended goals to achieve as economical system as possible (Kaplan and Cooper, 1998). Cokins and Lawson (2006) suggest that the guiding line for implementing ABC is that the level of detail and accuracy should be reflected on what the purpose of the achieved results is and, moreover, what kind of decisions are made based on the results.

4.2.3 Time Driven ABC – TDABC

To avoid the accuracy and cost trade-off problems and due to issues companies who have established ABC systems in the past, there has been introduced a new innovation of ABC model that is called Time-driven ABC (TDABC).

There has been some companies that have failed to implement the ABC system because of organizational and behavioural resistance towards the idea of treating the most of organizational cost as variables and the suggestion that most of the customers are unprofitable. But most importantly, the reason for abandoning the ABC system was that it was too heavy to support and maintain, and managers did not see the benefits through the growing complexity of the system. Every new activity that was added to the system increased the complexity of the ABC (Kaplan and Anderson, 2007). Kaplan and Anderson (2007) lists the next reasons why the conventional model of an ABC system had to be reinvented:

- When identifying the activities and building an activity dictionary the surveys and interviews required were too time consuming and costly.
- The data from ABC system was too subjective and difficult to validate.
- The data was too costly to store, process and report.
- Most ABC models were in siloes and there was no opportunity view the profitability on enterprise level.
- The ABC system was too heavy and difficult to update and maintain.
- The conventional model was incorrect in theory, as it did not recognize the unused capacity as resource.

TDABC model eludes the latter issues. To establish TDABC system, the need to identify the multiple activities by questionnaires and the surveying of the activity definitions is no longer needed when the department costs are driven into activities. The main categories of activities has to be established once and maintained, when changes are required, by simple time-definitions. Conversely to conventional ABC model, TDABC uses time equations in defining the required resources needed for conducting the activities. In TDABC there are two parameters concerning the department resource costs, *the capacity cost rate and the capacity usage of the required activity*, which needs to be estimated (Kaplan and Anderson, 2007). Whereas conventional ABC model required every different activity to be linked with separate cost pools and traced with individual cost drivers, TDABC notes only the time in executing the activity for a cost object. And by changing the time multiplier for the activity, the various task time durations can be mapped for the cost object, such as, writing technical support email compared to more demanding task of replicating a software bug. Hence, the activity driver data becomes more rigorous and more accurate and reflects the real situation in more convincing way (Stout and Propri, 2011).

The capacity cost rate is calculated by dividing the Cost of Capacity supplied with the Practical capacity of resources supplied (Kaplan and Anderson, 2007):

$$\text{Capacity Cost Rate} = \frac{\text{Cost of Capacity supplied (monetary)}}{\text{Practical capacity of resources supplied (minutes)}}$$

Where the Cost of Capacity supplied is the monetary value of whole department expenses and the Practical capacity of resources supplied is the amount of time available during a time period under investigation. The Practical capacity of resources supplied

denominator is an estimation of time available in practice to perform the duties demanded and usually presented in minutes.

For example, if the support department consists of 3 employees and all are responsible of conducting supporting activities, such as, sales support, technical support, training and relationship marketing and the daily working hours are 7,5 hours. This yields into 85 050 minutes quarterly, but if taken into account that approximately 70% of the time is conducted on customers and other non-productive work is subtracted, the practical time available is approximately 60 000 minutes per quarter. The cost of capacity supplied is the quarterly expenses for the frontline staff with salaries, equipment and similar, is 120 000 €, the Capacity cost rate yields into:

$$\text{Capacity Cost Rate}_Q = \frac{120000 \text{ €}}{60000 \text{ minutes}}$$

$$\text{Capacity Cost Rate}_Q = 2,00 \text{ €/min}$$

The estimation of the capacity required is often referred as the time to conduct the specific activity. The specific activity such as technical support email would be estimated by the TDABC development team and the transaction drivers of conventional ABC would be replaced with these estimations of time to conduct. The estimations of activity time multipliers can be decided by observing the work or by interviewing the employees, furthermore, it is an estimation, thus not, a precise value. Compared to conventional ABC, the estimations are easily observed and validated, moreover, they are more easily changed (Kaplan and Anderson, 2007).

For example, if the Capacity cost rate would be the latter 2,00 €/minute and the estimation for writing an technical support email would be 10 minutes, the task, i.e. activity, to write one technical support email would yield into cost of 20 € on one conducted activity.

Then again, if the technical support function related activity would be a more advanced task, for example, to investigate an reported bug and to find a solution for it, i.e. replicate a bug, would take additional 2 hours to conduct the task, the technical support activity would cost 300 €. TDABC uses time equations to catch the diverse task combinations related to activities (Kaplan and Anderson, 2007). The time equation on the example

would yield into, Technical Support Activity = 10 minutes + [120 minutes, if replication needed].

4.3 Customer perceptions of relationship value and satisfaction

The thesis context emphasizes customer-centricity and moreover relationship development through customer point of view, to increase the value for both the customers and the case company. The latter chapter revealed the concepts to determine the cost-to-serve on individual customer and it grounded the customer assessment process by distinguishing whether the customer is profitable or not. The customer base can be divided into distinct groups by the customer characteristics, i.e. divide the customer base into segments by portfolio analysis. By segmenting the customers, the development initiatives can be concentrated on the most potential customers. To be able to assess the customer base and draw more valid conclusions on which customer belongs to what segment there has to be an assessment on how the external factors such as customers' expectations, valuation and satisfaction on the provided customer experience affect the profitability. Therefore, it is important to investigate the customer perception on what they exactly receive from the supplier, in their point of view, and how do they value the experience. Before explaining the portfolio analysis and drawing strategical conclusions, the concepts of customer perceived value and customer satisfaction needs to be investigated.

4.3.1 Customer perceived value (CPV) and customer satisfaction (CS)

Customer perceived value (CPV) can be seen, amongst all, correlating the customer satisfaction, commitment and referral behaviour. CPV has been seen by many researchers as one of the most important indicator for strategy development and relationship development initiatives. On other hand, CPV is generally debated amongst scholars and the measuring of the concept is seen to be difficult, especially, in business to business context (e.g. Ulaga and Chacour, 2001; Ritter and Walter, 2012). In contrast to CPV, customer satisfaction is widely studied and many models have been developed to measure the CS such as commonly used SERVQUAL.

Kotler and Lane Keller (2009) defines customer perceived value as the difference between customer benefits and the sacrifice of consuming supplied products and services.

The benefits are a bundle of expected or evaluated perceptions of product benefits, services benefits, personnel benefits and image or brand benefits, i.e. these are the evaluations of added value the customer expects to get from supplier. The sacrifice is the perception of costs to acquire the specific product or service. The costs are a bundle of monetary costs, time costs, energy costs and psychological costs. Despite the CPV is a rich and useful framework to study customer insights, the conceptualization of the benefits and sacrifices are, first, not applicable from industry to another, secondly, they are different in consumer markets and in business-to-business environment and these are different even from business to another business, thus, the measurement is difficult and cannot be generalized nor can the CLV be precisely conceptualized (Sweeney and Soutar, 2001; Zauner, Koller, and Hatak, 2015).

Despite CPV can be seen as abstract and multi-dimensional concept (Zauner, Koller, and Hatak, 2015), the CPV is seen as important contributor into customer satisfaction. Where customer satisfaction measures the present performance of the supplier offering, the CPV is scanning more into the intentional behaviour and reveals future potential, hence, CS is considered to be as post-purchase construct and CPV does not depend on the purchase timing (Eggert and Ulaga, 2002). Eggert and Ulaga (2002) argues that customer satisfaction measurement alone can thus be used in situations where the guidelines for developing and enhancing products and services are required. Furthermore they conclude that CS has stronger links into repurchase intention, search for alternatives and referral behaviours that are the essence of this thesis in developing the relationships between the case company and its customers.

Whereas CPV in one of its dimension can be described as a simple trade of between quality and price, the CS can be seen as a sum of core quality, relational quality and perceived value, thus, CPV is one part of building customer satisfaction (McDougall and Levesque, 2000). McDougall and Levesque (2000) defines core quality as the basic level of promised or contractually decided services and products, and the relational quality defines the way the products and services are delivered. McDougall and Levesque views CS as an overall assessment of the provider, i.e. the assessment of the total product (Hill and Alexander, 2006), or the customer experience. Hill and Alexander (2006) defines CS as a measure of company total product performance against the set of customer expectations.

4.3.2 Customer Experience and the structure of the relationship

Customer experience can be defined as a journey from the pre-purchase to post-purchase phases where the whole delivered value package is assessed by its multiple transactions between the customer and the supplier throughout the lasting relationship. Lamming and Mason (2014) defines customer experience as follows:

“the physical and emotional experiences occurring through the interactions with the product and/or service offering of a brand from point of first direct, conscious contact, through the total journey to the post-consumption stage.” (Lamming and Mason, 2014)

In this context, where the contractual relationship that the case company has with its customers, the customer experience starts with signing the partner contract and the partner is trained by the case company to use and engineer its products. The partner company buys the products and engineers the systems, and during this, the most important touch point for the customer is usually the technical support and sales support services, thus, it is utmost important to succeed in this phase to drive the repurchase behaviour. After the project has been delivered to the end user, the focus is on issues, such as, warranty policies and the quality of the products. Issues, such as, the brand image, product discounts, i.e. special price agreements, the perception of the products, services quality and usability and the suitability of the product portfolio into the market, amongst other, are dealt within interactions in the touch points. Case company customers evaluate these touch points on daily bases. The customer perceived satisfaction on these touch points needs to be assessed individually to be able to focus on the most important encounters and, furthermore, to develop the delivery of the interactions.

Hill and Alexander (2006) discusses about total product, or total value package, that includes everything that the company does and delivers to its customers. In such terms, there are similarities to the concept of customer experience. The delivered total product turns into customer experience during the multiple encounters of the lasting relationship. Thus, it is important to measure the customer perceptions on the provided products and services on regular bases to draw conclusions of the direction the relationship is heading. According to Storbacka and Lehtinen (2001), the relationships are built of diverse encounters and activities. Hence, the encounters and the activities within these describes the relationship structure. They argue that customers do not evaluate the relationships based on single and individual encounter but, moreover, by a sum of different encounters that affect each other and dictates the customer experience for the relationship.

Hill and Alexander (2006) suggest that the total product has to be defined by the customers. Hence, the customers should decide which parts of the total product are the most important dimensions they are experiencing. When this aspect is applied into the relationship structure the next conclusion can be made, the customers decide the encounters related to the touch points that are the most important for them regarding the total product and the customer satisfaction towards these touch points are the priorities for development from the supplier point of view. In other words, customers define the relevant relationship structure and the supplier develops the means to manage the structure in most efficient way.

4.4 Linking customer satisfaction and customer profitability

This chapter is going to present the concepts of linking the customer satisfaction to profitability measures based on ABC methods. The ABC system as defined in chapter 4.2 is structured by different activities and a set of activity pools which represents the touch points for the customers regarding the services, i.e. these are the representation of the relationship structure. The customer experience is, then again, the authentic relationship structure defined by the customers. When these two dimensions are combined, the relationship value can be defined in means of internal aspect, i.e. what does the relationship provide for the supplier, and the external aspect, i.e. what do the customers get out of the relationship. Next, the concepts of the service-profit chain and satisfaction-profit chain are discussed to present more insight into the linkages between the external aspect and the internal aspect.

4.4.1 The service profit chain

Based on the article of Storbacka et al (1994), the relationship profitability is affected by components, such as, perceived value, customer satisfaction, and relationship strength and longevity. They are presenting a model where the quality of the service affects the customer satisfaction and the satisfaction strengthens the relationship which, then again, lengthens the relationship duration and this finally yields into increased profitability. The framework is presented in figure 8.

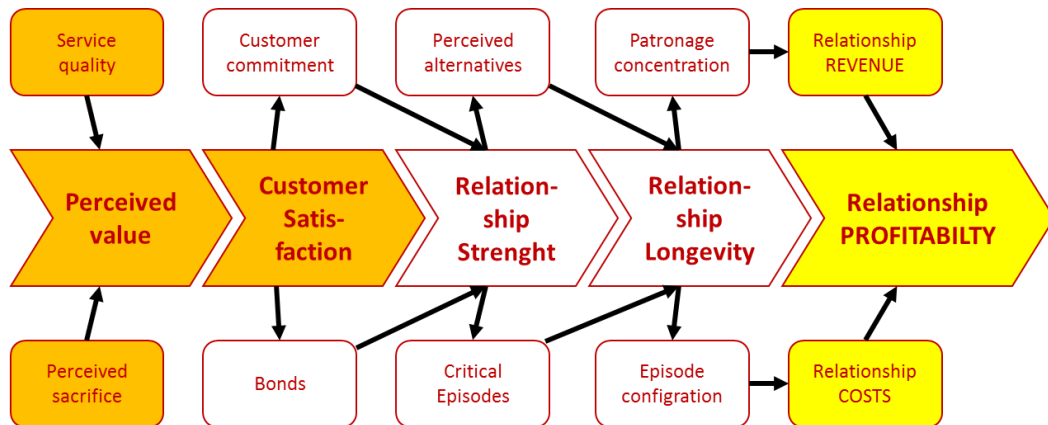


Figure 8. The linkages between the different components of relationship profitability (Storbacka et al.,1994)

Storbacka et al. (1994) presents the sequence between the various components that yield into relationship profitability in means of relations between customer perceived value, customer satisfaction, relationship strength, relationship longevity and finally relationship profitability. For the purpose of the thesis output the external aspect of the relationship, i.e. perceived value and the customer satisfaction, and the internal aspect of customer profitability are elaborated. The figure 8 elements are described in the table 7.

Table 7. The figure 8 elements (Storbacka et al.,1994)

Perceived service quality	Customers' cognitive evaluation of the service across episodes compared with some explicit or implicit comparison standard
Perceived sacrifice	Perceived sacrifices (price, other sacrifices) across all service episodes in the relationship compared with some explicit or implicit comparison standard
Perceived value	Service quality compared with perceived sacrifice
Customer satisfaction	Customers' cognitive and affective evaluation based on the personal experience across all service episodes within the relationship
Commitment	Commitment is defined as the parties' intentions to act and their attitude towards interacting with each other. High relationship value will affect commitment positively
Relationship strength	Measured both as purchase behaviour and as communication behavior (word of mouth, complaints).
Loyalty	Repetitive purchase behavior, which is based also on positive commitment by the customer indicates a stronger relationship. The behavior is also affected by the bonds between the customer and the service provider
Bonds	Exit barriers that tie the customer to the service provider and maintain the relationship. These are legal, economic, technological, geographical, time, knowledge, social, cultural, ideological and psychological bonds.
Critical episodes	Episodes that are of critical importance for the continuation of the relationship. Episodes can be critical based on

	the size of the values exchanged during the episode, compared with the parties' resources and based on the experiences during the episode.
Patronage concentration	The share of the customer's cash flow in a certain industry in which the customer chooses to concentrate on one provider Relationship longevity The length of a relationship
Episode configuration	The episode types and number of each type that occur over time in a relationship between a provider and a customer
Relationship revenue	The total revenue generated from a customer relationship during a fiscal year
Relationship cost	The total cost incurred from serving a customer relationship – including direct and indirect costs –during a fiscal year
Relationship profitability	Relationship revenue – relationship costs

The service-profit chain presented by Heskett et al. (1997) has the similar aspect of the linkages between satisfaction and profitability. In addition to the model presented by Storbacka et al. (1994), Heskett et al. (2008) emphasizes the effect of customer service employee satisfaction into the profitability. The SPC model is presented in figure 9.

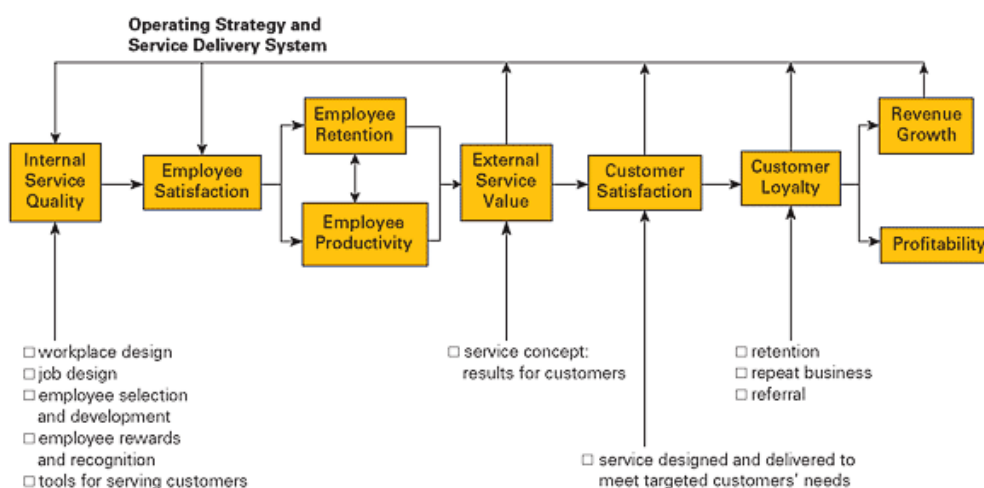


Figure 9. The links between Employee satisfaction, perceived value of the customers and profitability (Heskett et.al, 2008)

Hence, the customer perceived value is highly dependent on the employee satisfaction through employee retention and employee productivity. The means of developing the touch points for the customers in addition to the tangible factors, such as, products, brand and price, the value added for the customer by the services is the key to build differentiating key success factors. Internally, in the supplier organization this means that the employees of the frontline, i.e. the touch points for the customers', needs to be praised and focused on. The employees need to have knowledge on the affects their behaviour and

activities has on the customer satisfaction to guide them to develop their attitudes and the processes of serving the customers (Heskett et al., 2008). Hence the feedback from the customers' needs to be effectively and continuously communicated to the employees. Thus, the CRM system deployment is in the centre of creating such communication process.

4.4.2 The satisfaction-loyalty-profit chain

Kumar and Reinartz (2012) suggests that the degree of customer satisfaction is a key measure that affects customer profitability. They are building on the same principles presented by both Storbacka et al. (1994) and Heskett et al. (1997 and 2008) where the significance on the link between customer satisfaction, loyalty and profitability is emphasized. Kumar and Reinartz (2012) sees the customer satisfaction as a result of customer perceptions on product performance, service performance and employee performance. Hence, the whole customer experience needs to be included into satisfaction assessment. Furthermore, they state based on several empirical studies that the link between satisfaction, loyalty and profits has been resulting in mixed outcomes. For this reason they argue that it is important to have throughout understanding and analysis of the factors that affect the satisfaction and, moreover, on loyalty or the retention, such as, relationship bonds, customer commitment, customer perceived alternatives, i.e. competitors providing the same total product, and the process of handling the critical episodes (Storbacka et al., 1994).

Kotler and Lane Keller (2009) states that high customer satisfaction rates are not the ultimate goal. The provider needs to make sure that all of its stakeholders are satisfied in the appropriate level. They argue that spending excessively on pursuing high customer satisfaction scores might result in diverting funds from other stakeholders, which in long run yields into dissatisfaction of other stakeholders. To be able to set a suitable level of satisfaction, the level of additional indicators needs to be measured. Indicators such as repurchase behaviour, share of wallet and referral behaviour are all suitable indicators of customer commitment. Customer commitment is a significant indicator of customer retention that is the main contributor of customer profitability (Hill and Alexander, 2006).

Kumar and Reinartz (2012) suggest that if the provider emphasizes the cost of increasing customer satisfaction over the revenues the profitability decreases. Therefore, it is important to monitor the profitability in addition to customer satisfaction and retention to ensure the task to increase satisfaction rates is not exceeding the critical level of costs.

4.4.3 Portfolio analysis (PA)

Portfolio analysis has been traditionally used in dividing customer base into smaller target groups with individual needs and characteristics. PA can be formed based on attributes such as financial metrics, behaviour, age and profitability. Terho and Halinen (2007) defines customer portfolio analysis as follows:

“The customer portfolio analysis is an activity by which a company analyzes the current and future value of its customers for developing a balanced customer structure through effective resource allocation to different customers or customer groups.” (Terho and Halinen, 2007)

The customer portfolio analysis is similar to another expression of dividing customers into different groups by their characteristics, namely, segmentation, which was referred in chapter 3. Terho and Halinen (2007) claims that these two are distinct concepts. They argue that, whereas portfolio analysis seeks to find the different value for individual customer, the segmentation concentrates on dividing markets with homogenous customers into different groups based on purchase behaviour or their response towards marketing mix. Hence, this thesis is going to refer in the concept of portfolio analysis, which is going to be used as a tool or an illustration of the customer base, and where the individual customers are divided into specific groups by similar perception of the relationship value and their individual profitability.

Despite the distinction between customer segmentation and portfolio analysis, the methods to separate the customers from each other are adopted from the model that Storbacka (1997) presents in his research. Moreover, the result of both portfolio analysis and segmentation ultimately seeks to answer the question, which of the customers should the scarce resources be focused on to develop premium value and higher profits and to guide towards better decisions on generating mutual value for the parties of the relationships (Storbacka, 1997; Terho and Halinen, 2007). Therefore, there is no need to distinguish these two concepts in this context.

Storbacka and Lehtinen (2001) states that the purpose of dividing customers into different groups is mainly to identify the value potential in the customer base. They also point out that the potential to increase the profitability is often found amongst the lower profit customers as the changes to increase the profitability of these customers tend to be less demanding. Hence, they argue that the providers should focus their efforts on developing the relationship into to the low profitability customers because the number of these customers is usually higher and even small changes in their revenue affect the profitability of the whole customer base dramatically.

When dividing customers into portfolios, the customer perception should not be neglected. The customer perceived value, hence the satisfaction and loyalty, are amongst all, important in distinguishing individual customers in the segments or the portfolios. Floh et al. (2014) emphasizes the importance of separating customers based on assessment of their intentions and their attitudes towards the supplied products and services in means of developing meaningful customer base strategies. Moreover, Terho and Halinen (2007) sees that portfolio analysis can be generally categorized into two different approaches. The first one is based on customer value based portfolios and the second one is more based on the state and the nature of the customer relationships. The latter approach emphasizes factors such as relationship strength, hence, it is concentrating in attributes that yield into relationship longevity, repurchase behavior and commitment.

For the intended outcome of this thesis, the portfolio analysis is a tool to be able to ask the right questions from the most potential customers'. The intention of the portfolio analysis is to reveal the most critical topics and relationship elements where the customer perceived values should be investigated in more depth.

4.5 Conceptual Framework

The topics discussed in this chapter introduces the key concepts that are vital in assessing the customer base and, moreover, the individual customers. The emphasis is on drawing conclusions to develop and enhance the supplier-customer relationships. Hence, the concepts presented grounds the relationship value and profitability assessment process that introduces the guidelines to develop customer base and, moreover, individual customer strategies.

The conceptual framework is presented in figure 10 where the concept of customer-centricity is the focal point. This emphasis on customer-centric approach demands recurrent assessment cycles to establish the required change in the case company organization and, moreover, in the relationships with the customer companies'. The internal aspect of the case company perception on individual customer profitability is based on the concept of activity based costing (ABC) that is implemented in the CRM system. The external aspect of the relationship value is based on customer satisfaction and loyalty measurement. The internal and external aspects are combined by portfolio analysis yielding into customer profiles where the vital attributes for developing the relationships are revealed.

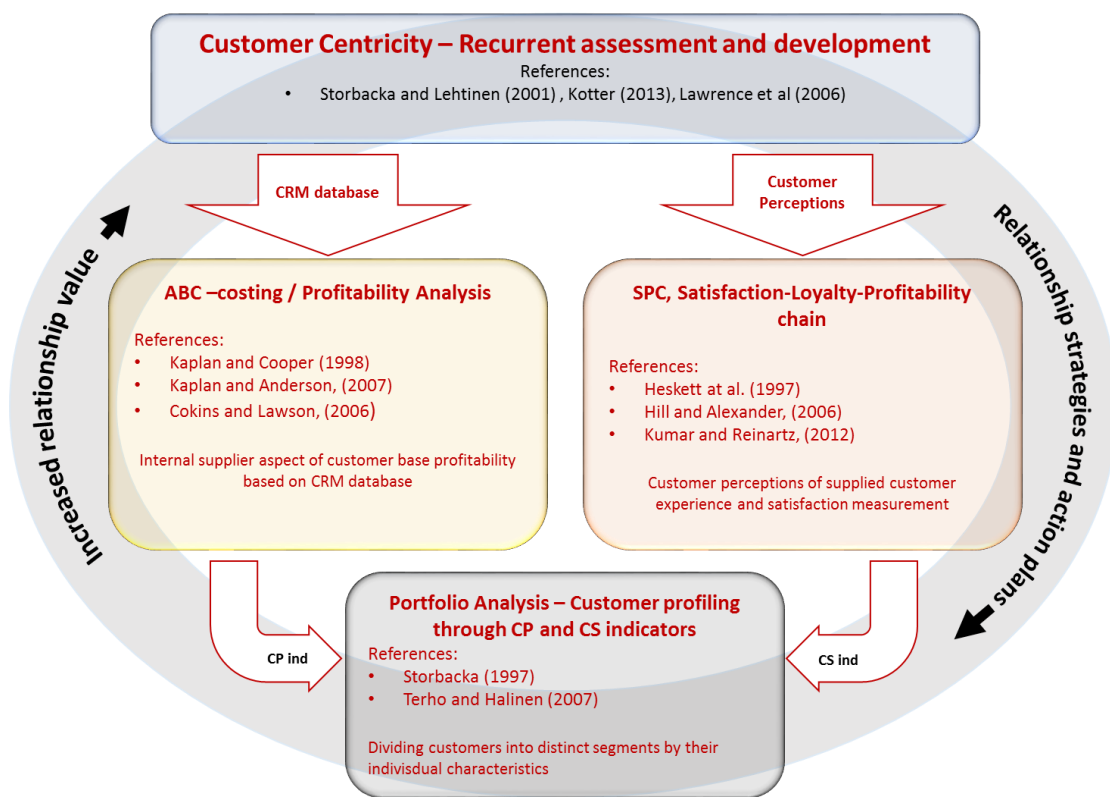


Figure 10. The Conceptual Framework

The assessment model is going to be grounded on the next concepts and topics:

- Customer centricity and relationship marketing concepts introduces the ground-
ing for developing meaningful relationship strategies. Moreover, these empha-
size the utmost important dimension of the customer point of view in relationship

development initiatives. Additionally, to create a customer-centric culture, it requires the organization to measure, assess and act continuously and constantly which introduces the concept of recurrent cycle of the relationship assessment.

- ABC costing is used to assess the cost-to-serve and calculating the customer profitability. Eventually ABC is used in means to reveal more rigorous data on the customer behaviours and the efficiency of the support and services functions provided by the case company. The customer profitability analysis is revealing critical aspects to help allocating the case company resources.
- The SPC, Customer satisfaction and perceived value are concepts that are the basis of developing the customer surveys to measure their perception of the customer experience, which the case company is providing them. The customer satisfaction and loyalty are in the centre to assess the customer perceived value and these are used to broaden the single view point of the internally decided customer profitability factor.
- The Portfolio Analysis (PA) and the customer profiling are in the core of the intended outcome of this thesis. PA is a tool or a representation of the customer base. It is a method to assess and to interpret the current situation regarding the customer relationships to draw fact based decisions to develop the most potential customer relationships.

5 Creation of the PPA process model

This chapter is going to present the development stages of the thesis proposal, where the various concepts presented in the latter chapter are used as guidelines. The chapter 3 presented the current situation in the case company related to the customer relationships, moreover, it revealed the problems and issues regarding the CRM system and its inefficient deployment regarding the data logging. The key for the case company to succeed is to establish sustainable success factors through changing itself into more customer oriented business. Hence, the customer perceptions and the learning from the customers has to be elaborated throughout the organization. The development of the customer relationships has to be economically sustainable, thus the development initiatives needs to be followed intensively through metrics such as customer profitability. Moreover, the customer centricity has to be elaborated as the utmost important goal for the case company regarding the whole customer experience. To achieve this, the case company needs to engage in recurrent cycle of a change process towards customer centricity and emphasize the value of its customer relationships'.

This chapter discusses the steps to develop a model for recurrent relationship assessment process. The first stage presents the development of the case company internal dimension of the assessment based on ABC costing and customer profitability analysis. The second phase presents the constructing of the customer survey that is based on the whole customer experience representing the customer point of view i.e. the external dimension of the relationship value. Finally, the tool to draw strategical conclusions and to build relationship development initiatives is introduced. The internal and external dimensions are represented in a portfolio canvas where the customer satisfaction and loyalty are compared against the customer profitability metrics.

5.1 Fostering the customer experience – the customer profitability dimension

The total customer experience that the case company provides consist of elements such as products, price, brand, support and service functions. In the aspect of customer profitability the emphasis is on the frontline team activities that are the support and service activities provided for the customers. Support and service function activities are the ones that distinguishes the individual customers in the aspect of profitability. The provided customer experience regarding the profitability dimension of the customer assessment

will thus include support and service functions that can be referred as customer experience fostering functions (CEF). The price, brand and product are omitted at this stage as these are representing fixed costs in respect of individual customer costs. Therefore the distinction between the customers can in this context be based on CEF costs which means that as there are no special products that would yield into differences in the costs of producing the products. The service and support function cost-to-serve ratio is the one that distinguishes the customers from each other.

The production costs and the product related services are seen as batch level costs (Kaplan and Cooper, 1998) that are fixed as per sales order activities, which belong to 02_Salesact category. Hence, the amount of sales orders translates directly into the production costs per customer and there is no need to define any specific level of production costs as these are linked in the amount of sales order activities. Figure 11 illustrates total product (Hill and Alexander, 2006), i.e. customer experience provided regarding customer profitability.

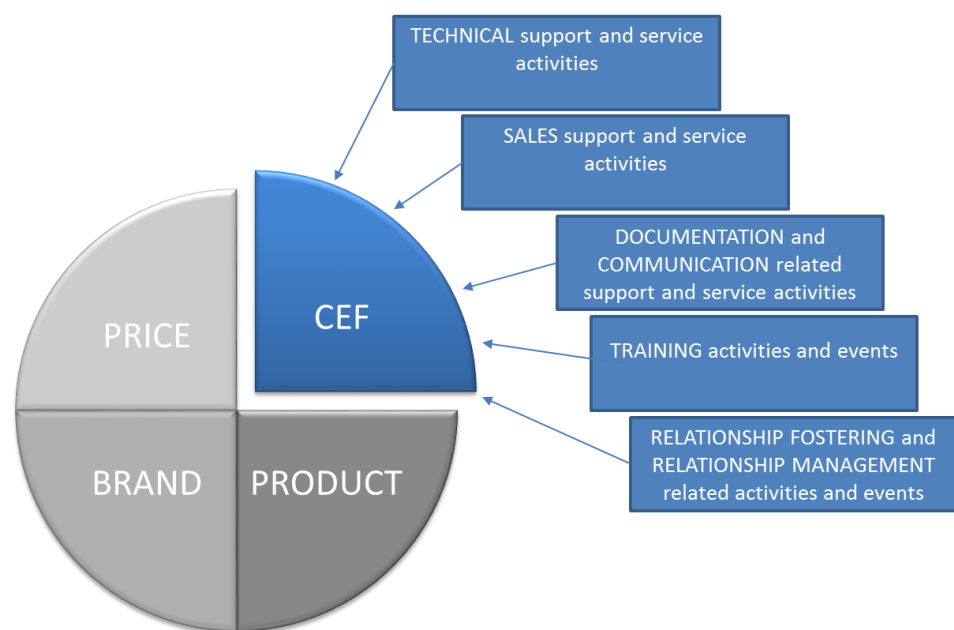


Figure 11. The customer experience in aspect of customer profitability and the related activity categories

The customer experience fostering functions consist of five distinct functions; Technical support and services, Sales support and services, Documentation and Communication services, Training services and Relationship fostering and management. Technical support is a collection of pre- and post-sale activities that aim for fostering the knowledge of

the customers and more importantly, building customer bonds through developing the sense of trust and commitment among customers towards the products and services. Sales function, in essence, is about effective order and delivery processes, especially, sales is responsible of special price agreements which are vital in some cases due to hard rivalry in the markets. Hence, sales consists of activities that affect, for example, the barriers for the customers to change vendor. Documentation and Communication consist of activities such as technical and marketing material translations, communicating the relationship script and communicating the issues and other relevant topics to the customers. This function is about effective knowledge exchange between the customers and the case company. Trainings are more vital in the beginning of the relationships, nevertheless, in conjunction with technical support, these are an effective way to influence the customer behaviors and to deliver value in the customer value creation functions. The relationship fostering and relationship management activities are the drivers of customer retention, referral, and repurchase behaviors. The aim of this function is to build the customer loyalty and satisfaction by intelligent and individual customer related strategies and action plans. Moreover, through emphasizing the co-operative brand promotion and integrated processes with the customers, the goal is to increase mutual relationship value.

5.1.1 Defining the Activity pools and related activities

The customer related support and service function activities needs to be defined accurately to be able to underline the critical issues of a relationship that needs intervening. Storbacka and Lehtinen (2001) points out that, for a company, to be able to develop efficient strategies to develop the relationships with the customers, the individual functions affecting the overall customer satisfaction towards the company, hence, the diverse activities that affect the delivery of the customer experience, needs to be assessed separately.

The first step to build the proposal for the intended outcome of the thesis, the actual activity categories were defined. The activity categories are a representation of the support and service functions that represents the internal dimension of the relationship assessment process. The Activity categories, i.e. Activity Pools (AP's) are specific groupings of the different activities that are conducted to support the individual customers. The AP's are presented in table 8.

Table 8. The Activity Pools of the case company CEF functions.

Activity Pool	Description
01_techact	Technical support and service related activities.
02_salesact	Sales support and service related activities.
03_Docs&Comms	Documentation related both in technical and marketing initiatives and communication activities.
04_trainingact	Customer training events on product, system designing and engineering and other tools.
05_RF&RM	All activities related to relationship management and co-operation.
T1_GeneralMeetings	All meetings regarding the customer base, in co-operation with the customers or internally within the case company.
T2_Docs&Comms	Generally all customer base related documentation and communication tasks.
T3_Market&Strategy	The tasks related to market, competitor and pricing analysis and strategy development initiatives.
T4_Technical	Technical events and task reflecting the whole customer base.
T5_Sales	Sales events and task affecting the whole customer base.

The activity pools are divided into two separate main groups. The AP's starting with the 01 to 05 are used for logging individual customer related activities and the second group with T1 to T5 are used for activities and events conducted generally relating to the whole customer base. The distinction between individual and generally conducted activities needs to be defined to be able to characterize the customer companies by their demand towards the support and service functions. Hence, the AP's from 01 to 05 are the activities that yield into differences between the customers in means of relative profitability. AP's from T1 to T5 can be used in addition to the 01 to 05 categories if the monetary value of the customer profitability needs to be assessed. For the purpose of the thesis outcome the AP's T1 to T5 are omitted and the relative customer profitability is defined based on activity costs drawn from AP's 01 to 05.

5.1.2 Exploratory phase to define the activities

The AP's that were presented in the latter chapter were the starting point in developing the structured questionnaires for the case company staff. To be able to add validity and reliability in the definition of the activity pools and the related activities, the views of the whole case company Nordic team had to be investigated. The Nordic team consists of four technical support employees, including the author, and four sales representatives. The ninth person was the representative of the customer support. The team employees has working experience in their respective roles from 3 to 20 years, hence, the professional experience provides a solid foundation to analyse and interpret the task at hand. The exploratory phase to reveal the different time multipliers for individual AP's was conducted in two phases, the first phase included the structured questionnaires sent to the case company Nordic team employees and the second phase was to validate the outcome of the questionnaire in a workshop. The process with the respective steps is presented in table 9.

Table 9. Data 2 collection, phase 1 – the internal aspect of the pear group

Research object(s)	Methods and reason / type of data	Participants	Duration / recording methods
<ul style="list-style-type: none"> Define the activities related to AP's. Identify the average time consumption i.e. time multiplier by AP and the approximation of the overall time load per AP. 	<ul style="list-style-type: none"> Exploratory research conducted by structured questionnaires / quantitative data and qualitative data 	<ul style="list-style-type: none"> All employees of case company Nordic team including 4 Technical supporters, four sales representatives and customer supporter 	<ul style="list-style-type: none"> Data collected and summarized onto a spreadsheet The questionnaire is presented in Appendix 2
<ul style="list-style-type: none"> Decide and validate the AP's with respective time duration approximations to be used as the time multipliers in the ABC system 	<ul style="list-style-type: none"> Workshop / qualitative data and decisions based on consensus 	<ul style="list-style-type: none"> Nordic Team and the Nordic Sales manager 	<ul style="list-style-type: none"> Duration 1 hours 20 minutes. Meeting Notes

The AP's and the related descriptions were presented to the respondents in the structured questionnaire. The questionnaire was a representation of the most obvious and relevant activities that were seen conducted within the daily duties of the frontline staff. The full listing of the tasks and events are presented in appendix 2. The aim of the questionnaire was to collect the employees' approximations on the time duration in conducting the specific activities. There was additionally a request to assess the importance for the customers of the activities according the views of the employees. The importance factor, i.e. the perceived impact, was assessed to be able to reveal possible gaps in the views of the employees compared to the respective views of the customers collected in phase 2. These gaps will point out the first priorities for changing the employee behaviour. The activity pools with the related factors are presented in table 10.

Table 10. The Activity Pools (AP's) of the case company and the results on internal questionnaire on the diverse activities.











Activity Pool	perceived emphasis	Impact factor	Duration/ activity (minutes)	time load	Frequency indicators	Average event duration (h)
01_techact	3,4000	26,2 %	18	 27,9 %	2,6897 34,2 % <i>Frequent</i>	2,3
02_salesact	2,7481	21,2 %	16	 30,6 %	2,5401 32,3 % <i>Daily</i>	2,7
03_Docs&Comms	1,2500	9,6 %	Events Only	 4,5 %	0,5000 6,4 % <i>Yearly</i>	2,0
04_trainingact	2,9167	22,5 %	Events Only	 11,9 %	0,4583 5,8 % <i>Yearly</i>	5,8
05_RF&RM	2,6429	20,4 %	21	 25,1 %	1,6667 21,2 % <i>Weekly</i>	3,3
T1_GeneralMeetings	2,1000	14,0 %	Events Only	 24,8 %	0,8000 18,4 % <i>Monthly</i>	5,7
T2_DOCS&COMMS	2,4667	16,4 %	Events Only	 12,3 %	0,4583 10,5 % <i>Yearly</i>	4,9
T3_Market&Strategy	2,3750	15,8 %	19	 12,7 %	0,7240 16,6 % <i>Yearly</i>	3,2
T4_Technical	4,2000	28,0 %	30	 27,2 %	1,2500 28,7 % <i>Weekly</i>	4,0
T5_Sales	3,8750	25,8 %	20	 23,0 %	1,1250 25,8 % <i>Weekly</i>	3,8

Table 10 presents the tentative AP's where the different parameters were analysed in the workshop meeting. The factors explained:

- **Perceived emphasis**

Perceived emphasis indicates the respondents' perception on the influence and importance the Activity Pool has in affecting customer behaviour. Perceived emphasis is the average value of all activities in questionnaire responses related to the specific Activity Pool.

- **Impact Factor**

Impact factor is the relative value of all Activity Pools representing the perceived emphasis from employee point of view i.e. it describes which of the Activity Pools are seen most important by the employees, thus, where the efforts might be seen

to be focused on. The individual Activity metrics (01 to 05) are separated from the unit cost Activity metrics (T1 to T5).

- **Duration / Activity**

Duration per one activity is average of respondents perceptions of conducting an activity related to Activity Pool. If the approximated duration of an activity exceeded 60 minutes it was seen as an event with duration parameter in CRM system log indicated with 'Event Only' label.

- **Time Load**

Time load is the approximated work load the AP consumes. It is an calculation where both the average event duration and activity duration are multiplied with the frequency indicator.

- **Frequency indicators**

Frequency indicator is the average amount of encounter activities in specific Activity Pool. Frequency indicator is an average of respondents assumptions on how many incidences there are of activities. The highest percentage is the busiest Activity Pool.

- **Average Event Duration**

The average time in hours an event was seen to take to conduct in specific Action Pool.

The intention of the workshop meeting was to decide the approximated time multipliers that will be implemented in the customer profitability tool. The relative cost-to-serve ratios that are deducted from the relative revenues are based on the TDABC concept. The values presented in table 10 in column “duration/activity” are the decided values to be used as the time multipliers for the activity drivers, hence the profitability can be assessed in credible means. Next chapter will introduce the tool that is used to assess the individual customer profitability and to divide the customer base into preliminary portfolios.

5.1.3 The time driven ABC and the customer profitability assessment

The customer profitability analysis (CPA) tool is used for calculating the individual customer profitability and to divide customer base into portfolios, i.e. conducting the portfolio analysis using the CPA results. The Customers are compared against each other, thus, the values used to indicate costs and revenues are not monetary values. Revenue values are collected from the CRM database (SFDC report) and customers are compared to whole customer base to calculate their individual share of the revenue. Cost-to-serve ratios are also based on CRM database reports and respectively calculated as a share of whole customer base. The intention of the tool is to reveal hidden costs that cause some of the customers to be unprofitable and elaborate the exact functions where the costs are caused, hence the output of the tool is aiming to:

- Guide the relationship management decision making
- Highlight the customers that needs intervening
- Point out the customers to focus on
- Develop meaningful questionnaires targeted to SI's according to their individual CPA results. Furthermore, point out the relevant issues that needs more investigation within the relationship.

The attributes, i.e. values for establishing the Customer Profitability Analysis (CPA) and deciding the customer portfolios, are based on historical data (retrospective). The values cannot be used in prospective means, hence, these do not predict the future. The attribute values are collected from past time frame that is decided based on how accurately the analysis will be conducted. The length of the time period or the time frame under investigation can be changed within the CRM system report.

The customer profitability, relative value of whole partner base (CP_{REL}) is calculated by subtracting the cost-to-serve from the relationship revenue within the decided time frame, hence, $CP_{REL} = RR_{SOT} - RC_{SOT}$, where RR_{SOT} , relationship revenue as the share of total is calculated, $RR_{SOT} = \frac{RR_i}{RR_{TOT}}$ and RC_{SOT} relationship costs as the share of total are calculated as $RC_{SOT} = \frac{RC_i}{RC_{TOT}}$. Where i is the customer, RR_{TOT} is the total revenue of the selected time period and RC_{TOT} is the total costs of the partner base during the selected time period.

To be able to evaluate the costs in credible means the Activity Based Costing (ABC) concepts are being applied, moreover, the Time Driven ABC (TDABC). Which means that the activities caused by the customer demand on the support functions are measured by their approximate time to conduct (TC) multiplied by the quantity i.e. the amount of conducted activities (QA). The activities are seen as cost drivers for the cost pools (i.e. the customer companies). The activities are divided and logged into respective main categories (i.e. activity pools, AP's) and the costs are calculated on each AP by $QA \times TC + \sum_{ETD}$, where \sum_{ETD} is the sum of logged *EVENTS* time duration.

For the CRM system in this context, the need for separating similar activities based on their duration is seen unnecessary and to avoid excessive complexity. Thus, reducing the time required to log the activities, only the most common activity costs are calculated by multiplying their TC with the amount of conducted activities QA. The accuracy of defining the costs as described is sufficient when the most recurrent activities, which are *TASK* –type inputs, are multiplied with an approximated TC. Whereas, the more time costing activities in the same AP are logged into the CRM system as Events. Events, i.e. calendar inputs in the CRM system are logged by their duration, thus, the need for several different type of, for example, technical support activities is not required. The duration of the events are summoned by AP yielding into \sum_{ETD} .

Examples of the user interface of the tentative tool are presented in figure 12 and 13. Figure 12 is a view of the portfolio analysis outcome with the relevant values for the RC and RR. The Figure 13 is a view of the customer profitability as per individual CEF function.

CUSTOMER PROFITABILITY							
	RC _{SOT}	RC _{RANK}	RR _{SOT}	RR _{RANK}	CP _{REL}	CP _{RANK}	SEGMENT
SI A	0,1366	▼	0,2734	▲	0,1369	1	II
SI B	0,1223	▼	0,0399	▲	-0,0824	14	II
SI C	0,0694	▼	0,0164	▼	-0,0530	13	IV
SI D	0,0031	▲	0,0022	▼	-0,0008	9	III
SI E	0,1724	▼	0,0636	▲	-0,1088	15	II
SI F	0,0021	▲	0,0034	▼	0,0012	8	III
SI G	0,0025	▲	0,0039	▼	0,0014	6	III
SI H	0,1028	▼	0,0829	▲	-0,0199	12	II
SI I	0,0004	▲	0,0017	▲	0,0013	7	III
SI J	0,0188	▲	0,0236	▼	0,0048	4	III
SI K	0,0323	▲	0,0659	▲	0,0336	3	I
SI L	0,1464	▼	0,1407	▲	-0,0057	11	II
SI M	0,0253	▲	0,0271	▲	0,0018	5	I
SI N	0,1610	▼	0,2527	▲	0,0916	2	II
SI O	0,0046	▲	0,0027	▼	-0,0020	10	III

SEGMENTS:
I = Protect
II = Develop
III = Change
IV = Critical

Figure 12. An example of the CPA tool user interface.

COSTS												SUM									
Analyse per Head count																					
	01_techact			02_salesact			03_propakact			04_trainingact			05_marketingact			(mins)					
SI A	534	0,11		4914	0,17		220			1800			56			7524					
SI B	1014	0,20		2991	0,10		95			2580			60			6740					
SI C	240	0,05		798	0,03		30			2700			56			3824					
SI D	54	0,01		105	0,00		10			0			0			169					
SI E	0	0,00		2163	0,08		15			2700			4620			9498					
SI F	0	0,00		21	0,00		35			0			60			116					
SI G	60	0,01		63	0,00		15			0			0			138					
SI H	582	0,12		2373	0,08		10			2700			0			5665					
SI I	0	0,00		21	0,00		0			0			0			21					
SI J	72	0,01		945	0,03		20			0			0			1037					
SI K	90	0,02		1674	0,06		15			0			0			1779					
SI L	756	0,15		4530	0,16		80			2700			0			8066					
SI M	504	0,10		861	0,03		30			0			0			1395					
SI N	1098	0,22		7266	0,25		275			0			234			8873					
SI O	54	0,01		105	0,00		40			0			56			255					
5058		CP_ENCOUNTER		28830		CP_ENCOUNTER		890		CP_ENCOUNTER		15180		CP_ENCOUNTER		5142		CP_ENCOUNTER		55100	
18		9,18 %		21		52,32 %		5		1,62 %		0		27,55 %		28		9,33 %		344 221,33	

Figure 13. The CPA tool view of the profitability per individual function.

To be able to generate the required reports on revenues and cost-to-serve ratios, the CRM system had to be configured in specific means. Hence the Accounts and Contacts had to be modified in certain way to enable the activity logging. The next illustration (figure 14.) explains the structure of a customer account, where the specific activity pools are included:

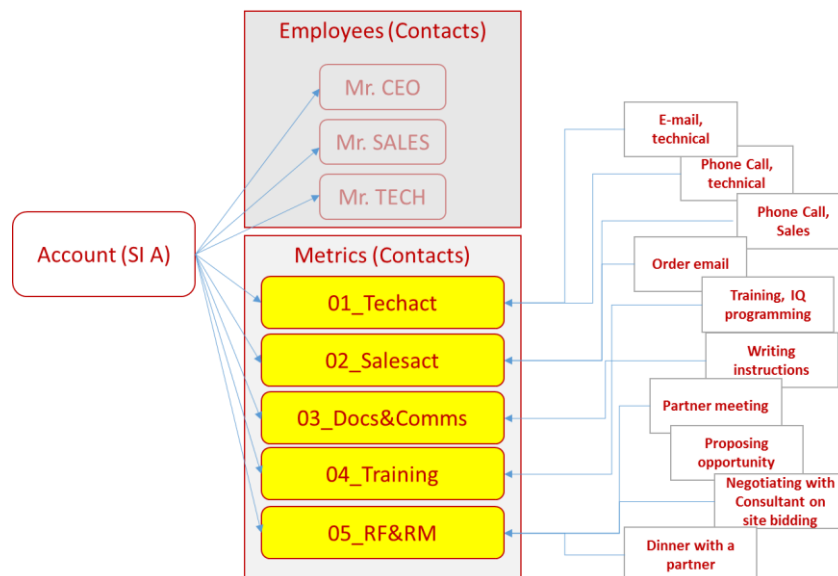


Figure 14. The structure of a CRM system customer account to be able to apply the ABC costing system.

Figure 14 is a representation on a single CRM account where the various contacts, i.e. employees belongs to. To be able to distinguish the activities in different functions in the

CRM database, the related AP contact records were included into the account. Every CRM account representing the whole customer base was configured in similar means. Hence, every account has a representation of the support and service functions which enables that the CRM system reports can be drilled into individual activities amounts per function.

5.2 Perceptions on customer experience – CPV and CS dimension

When the perceived value i.e. customer perception towards total customer experience is assessed, the evaluation based on only CEF is not enough. The price, quality and product dimensions need to be included in the assessment. When customer evaluates the value of the experience that is provided, he assesses the whole package and includes parameters such as, quality of product and delivery, product features, price and the trade of between quality and price and the value created by support and service functions. Hill and Alexander (2006) argue that the perceptions towards total product needs to be measured and the customers define the total product, i.e. the customer experience. The customer experience as seen in aspect of customer satisfaction and customer perceived value is presented in figure 15.

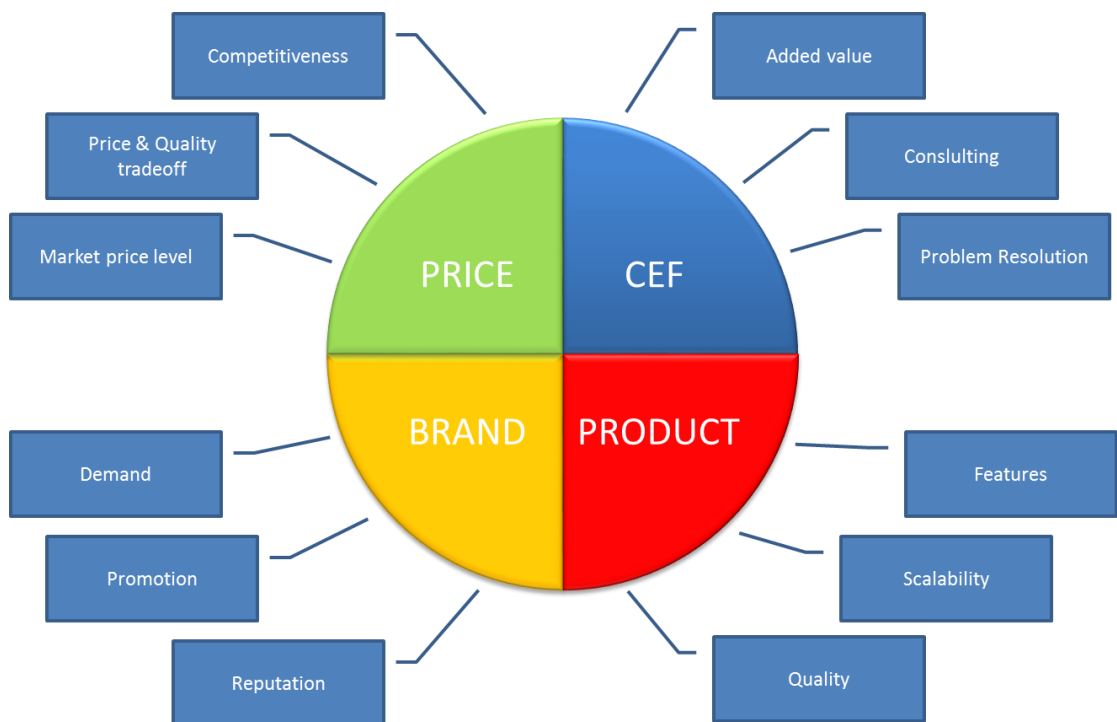


Figure 15. Customer experience package and examples of components affecting the perception

The customer experience package in this context consist of four main topics, the CEF, the product and product portfolio, the brand of the case company and pricing of the products and related services. The main categories are emphasized when the customer survey is designed. The customer survey is the tool that will be used to track changes in customer perceptions, i.e. the commitment and the satisfaction rates. Following the guidelines provided by Hill and Alexander (2006), the survey is going to be based on preliminary interviews with selected customers to be able to ask the most meaningful questions. Hence, the exploratory phase of identifying the most important topics in customer perceptions is used to point out the questions that needs to be included in the customer surveys. The customer surveys are the essence of defining the external dimension of the relationship value assessment.

The following chapters will discuss the exploratory phase to identify the meaningful topics and how the survey was developed. First, the explorative stage is discussed in more depth and after this, the tentative survey is presented and the validation of the survey is discussed.

5.2.1 Defining the customer experience

To be able to define the customer experience, the provider needs to rely on the customer point of view. Customer aspect is the essence of defining the customer experience as customers are the ones who are the ultimate judges of their own experience. Hill and Alexander (2006) states that it would be arrogant for a provider to decide the content of its customer survey. Hence, the exploratory stage to define the customer experience that will be measured in means of customer satisfaction starts with defining the themes for an in-depth interview. The themes were decided internally within the local frontline team based on the internal questionnaire on activities and activity pools. The themes were constructed into a theme interview and the interview was included with a structured questionnaire (see appendix 3).

The interview participants were selected based on the initial customer portfolio decided in stage 1 (see figure 12). The participants are representing their individual portfolio, hence, the selection of the participants aim for wide representation of different customer characteristic. The participants are a representation of the whole customer base in means of their characteristic based on profitability. Table 11 presents the research steps conducted in designing the customer survey.

Table 11. The required steps to design the customer survey.

Research object(s)	Methods and reason / type of data	Participants / media	Duration / recoding methods
<ul style="list-style-type: none"> Define the topics that means most for the customer in context of case company customer proposition 	<ul style="list-style-type: none"> Exploratory, structured questionnaire combined with depth interview / quantitative data and qualitative data 	<ul style="list-style-type: none"> Test case A / phone interview 	<ul style="list-style-type: none"> A, duration 1h 9min, 5.9.2016 The questionnaire used is presented in Appendix 3 / audio taped and transcribed
<ul style="list-style-type: none"> Define the topics that means most for the customer in context of case company customer proposition 	<ul style="list-style-type: none"> Exploratory, structured questionnaire combined with depth interview / quantitative data and qualitative data 	<ul style="list-style-type: none"> Test case B / phone interview 	<ul style="list-style-type: none"> B, dur. 1h 21min, 6.9.2016 / taped and noted
<ul style="list-style-type: none"> Define the topics that means most for the customer in context of case company customer proposition 	<ul style="list-style-type: none"> Exploratory, structured questionnaire combined with depth interview / quantitative data and qualitative data 	<ul style="list-style-type: none"> Test Case C / face-to-face interview 	<ul style="list-style-type: none"> C, dur. 1h 14min, 7.9.2016 / taped and noted
<ul style="list-style-type: none"> Define the topics that means most for the customer in context of case company customer proposition 	<ul style="list-style-type: none"> Exploratory, structured questionnaire combined with depth interview / quantitative data and qualitative data 	<ul style="list-style-type: none"> Test Case D / face-to-face interview 	<ul style="list-style-type: none"> D, dur. 1h 34min, 13.9.2016 / taped and noted
<ul style="list-style-type: none"> Validate the tentative survey 	<ul style="list-style-type: none"> Informal telephone interviews on the survey and email feedback 	<ul style="list-style-type: none"> Test case A Test case B Test Case C Test Case D 	<ul style="list-style-type: none"> Emails (not published)

The interviews were conducted by phone with test case A and B, and face-to-face with test case C and D. The interview sheet is presented in appendix 3. The outcome of the interviews was a table of topics that were all discussed during the interviews. The topics were rated by the interviewees from 1 to 10, where 10 is the most meaningful in respect of customers business and 1 was stated for the irrelevant topics. These ratings were then correlated against the stated overall satisfaction to point out the most relevant issues. A survey was developed based on these results and it was validated by the test

cases to make sure it covered every critical aspect of their perception towards the customer experience. The following chapter will present the results and the analysis and the validation process of the results.

5.2.2 Tentative customer survey model

The themes selected to conduct the depth interviews were, the individual CEF functions and the product portfolio. The interview is following the principles presented by Hill and Alexander (2006), where the interview starts with defining the customer purchase decision making. The second topic is to probe how the customer evaluates the provider prospect to reveal the expectations and priorities of the customer. The final stage for revealing hidden topics for the priorities and expectations is to probe deeper into the purchasing criterions. The interview is finalized by structured questionnaire where the selected topics are marked based on their importance for the customer value creation functions. The designing process of the customer survey is presented in figure 16.

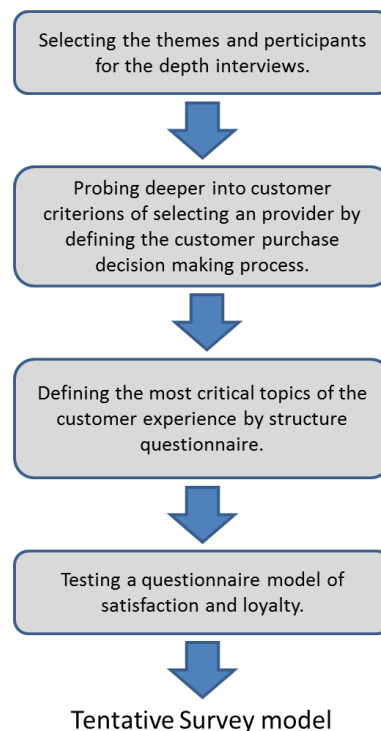


Figure 16. The process of developing the customer satisfaction and loyalty survey

The questions to reveal the customer priorities and expectations are emphasizing the hypothetical situation where the customer has not yet decided the provider. Questions

such as, “If you would now select a supplier (for whatever), what would be the most important criterions to do the decisions?”, “What would be the most important issues in the provider services and support functions, that would influence your decision?” and “If and when you have a current relationship with some provider, what would the most critical issues be to yield into cancelling the co-operation?” were used in the interview. Based on the answers the list of topics were fulfilled and the next phase was to ask the interviewees to fill out the structured questionnaire. The results for the questionnaire were showing the most critical topics that are important to ask in the survey. Table 12 presents the selected and the most important topics.

Table 12. The most important topics for the survey.

TOPIC	MAX	MIN	AVG	MEDIAN	MODE	STDEV	CORREL	CATEGORY
Technical issues resolution	10	9	9,67	10,00	10	0,52	0,612	Tech
Quality/Price (the payoff)	10	8	9,50	10,00	10	0,84	-0,375	Pro/Pri/Bra
Technical support in native language	10	7	9,00	9,00	9	1,10	-0,612	Tech
R&D customer centricity	10	8	9,00	9,00	10	0,89	-0,802	Pro/Pri/Bra
Price	10	7	8,83	9,00	9	0,98	-0,612	Pro/Pri/Bra
PNET content and other functions	10	7	8,83	9,00	10	1,17	-0,456	doc&com
Communication and information availability	10	8	8,75	8,50	8	0,96	0,522	doc&com
Technical support availability by phone	10	7	8,67	8,50	8	1,21	0,772	Tech
Current and realtime information and reporting of bugs and issues in products and services	10	7	8,67	9,00	9	1,03	0,784	doc&com
Supervisors and features	9	8	8,50	8,50	8	0,55	0,612	Pro/Pri/Bra
Product features	10	6	8,50	9,00	9	1,38	-0,791	Pro/Pri/Bra
Product features	10	6	8,33	8,50	9	1,37	-0,802	Pro/Pri/Bra
Technical support by remote desktop software	9	6	8,33	9,00	9	1,21	1,000	Tech
Level of products and product portfolio mathing the demand	10	6	8,17	8,00	8	1,33	-0,875	Pro/Pri/Bra
Self-service licensing and other self-service consepts	9	6	7,83	8,00	9	1,17	-0,686	doc&com
Product portfolio scalability	10	6	7,83	7,50	7	1,47	-0,772	Pro/Pri/Bra
Supplier brand	10	6	7,67	7,50	7	1,37	-0,885	RM
Partner community trancparency	9	3	7,50	8,00	8	2,26	0,980	RM
Discount level	10	1	7,33	8,50	9	3,27	-0,686	Sales
Sales representative expertice	10	1	7,33	8,00	8	3,20	-0,875	Sales
Special price Agreement process	10	1	7,17	8,00	8	3,19	-0,784	Sales
Sales support	10	1	7,17	8,00	8	3,13	-1,000	Sales
RMA's, product returns	9	6	7,17	7,00	6	1,17	-0,784	Sales
Co-operation amongst parters managed by the supplier	9	1	6,67	7,50	7	2,88	0,986	RM
Sales events together with the supplier	10	1	6,50	7,00	7	3,02	-0,885	Sales
Partner meetings	8	1	6,33	7,50	8	2,73	0,959	RM
Industry analysis and mutual strategic goals provided by the supplier	9	4	6,00	5,00	5	2,00	-0,722	RM
Meeting end users together with the supplier	10	1	5,83	6,50		3,31	-0,691	RM
Technical sales skills and consultation in customer events	7	3	5,50	6,50	7	1,97	0,968	Tech
WEB based trainings and eLearning facilities	9	1	5,33	6,00	7	2,94	0,748	Training
Class room training	7	1	5,00	6,00	6	2,19	0,890	Training
Meeting consultants together with the supplier	10	1	4,67	4,50	1	3,61	-0,733	RM
End-user Training by supplier	7	1	4,33	5,00	1	2,80	0,877	Training

The topics were presented in a separate sheet with 71 different items. The respondents were asked to select a handful of items that they thought were the most important regarding their business, and mark these with 10. Then the next items were marked with

8 to 9. After the most important topics were marked, the respondent was asked to move to the unimportant topics and mark these with 1 to 4. The rest were marked with 5 to 7.

The topics presented in the table 12 were selected by analyzing the average (AVG), median, standard deviation (STDEV) and the correlation (CORREL). The selection criteria for average rating was selected to be more than 7.0 and for the median it was 7.5. For the standard deviation the selection criteria was below average value, as standard deviation indicates the level of consensus between respondent ratings, and the smaller the value is, the more uniform are the ratings between respondents. The correlation compares the ratings with overall satisfaction and it gets values between -1 to 1. The value 1 is perfect positive correlation, hence, it follows exactly the ratings of overall satisfaction. -1 represents exactly negative correlation and it reveals the negative impact compared to overall satisfaction. The selection criteria for correlation was selected to be value above 0.6 and below -0.6. The final decision to select the topics were based on criteria that at least three of the criterions had to be fulfilled.

Based on the in-depth interviews and to fulfill the related individual CEF functions topics, there was some exceptions selected such as the Training function related topics and some RF&RM function related items. The final list consist of 33 topics that were used to generate the questions for the survey. The listing of different functions and related amounts of topics are presented in table 13.

Table 13. The selected topics per category.

	Technical	Sales	Documentation and communication	Training	Relationship fostering and managent	Product, Price and Brand
suggested topics	10	16	9	4	16	11
selected topics	5	6	4	3	7	8
average importance	8,23	7,11	8,52	4,89	6,38	8,58
Overall importance	7,03					

The final part in constructing the satisfaction and loyalty survey, the loyalty scheme had to be tested. The loyalty part of the interview was based on tentative proposal for revealing rating based on 3R's. The questionnaire was developed internally and grounded on the concepts of 3R's discussed in chapter 4.1.1 and the concepts of service profit chain and satisfaction-loyalty profit chain in chapter 4.2. The intention was to test the capability

of the respondents to answer on questions such as “How satisfied are you on the relationship with the case company”, to reveal the overall satisfaction. The referral behavior was probed with questions such as, “How likely would you recommend case company for your customers and in the projects?” and “Can case company use you as reference to new partner candidates?”. The repurchase or repeat business was probed with questions such as, “Does case company meet your expectations in products and services?” and “Did your case company related sales increase, decrease or did not change compared to your overall turnover?”. The retention rates were investigated by questions, “Have you used and sold rival BMS systems”, “How do you compare these into case company systems” and “Are you going to hire new engineers for case company systems?”. The full questionnaire is included in appendix 3.

The notable issue from the interviews and the questionnaires was that all respondent emphasized the topics related to pricing, product features and product portfolio scalability. The services and support functions were seen important but not in the same level as the tangible factors such as price and quality tradeoff and pricing level compared to competitors. Furthermore, one major topic that was seen important in means of respondents businesses and the competitiveness, was that the case company had failed to promote the brand to the market. Hence, these latter topics were emphasized in the proposed survey.

5.2.3 Testing and validation of the survey

For the purpose of the final testing of the proposed partnership performance assessment model, the external dimension of the customer portfolio analysis had to be validated in means of reflecting the customer perceptions in general terms. Hence, the survey to be used to measure customer satisfaction and loyalty rates during the continuous and recurrent circles of relationship assessment and development had to be tested and validated.

The testing was conducted in co-operation with the test cases used in phase 2 of generating the survey model. The survey was implemented on a web-based survey platform and it was distributed to the test cases. The scaling used in the survey where both verbal scaling and numerical scaling. The verbal scales for expectations and satisfaction were chosen because these are seen more neutral than, for instance, Likert scales (Hill and Alexander, 2006). The scaling was biased positively and valued by 0 to 6 in the analysis.

The scale was positively biased by rating “meaningless” as 0 and “not important nor unimportant” as neutral market with 2, whereas “critical for our business” was marked with 6. Regarding the satisfaction rates the values were accordingly, “Extremely unsatisfied”, “Nor satisfied or unsatisfied” and “delighted”. The bias was aiming to gain more insight of who of the customers might be delighted more than just very satisfied. The numerical scaling from 0 to 6 was used in questions where the impact of stated issue was under investigation, such as, the question “What is the most critical issue you are currently facing in the relationship with the case company, and how critical do you see this issue in means of your business?”. The survey is presented in appendix 4.

The respondent were asked to feedback on the possible issues they were facing, and if there was any details they were missing in the survey. One respondent suggested that there should be more input boxes for explaining the opinion. He stated that “The answers are seen too black and white, and I would prefer to have a place to write my justifications in, to provide deeper insight of my perceptions”. Hence, the suggestion is good and therefore the survey will be engineered in a way where the insights per category can be written.

For the overview of the results, tables 14 to 20 presents the results and analysis of the responses as per individual sections of the survey.

Table 14. The test results on 3R's section of the survey. Questions 66 to 80.

LOYALTY (3R's)

CUSTOMER	General	RELATED			3R SCORE	3R ind
	satisfaction	REFERRAL	SALES	RETENTION		
Test Case A	2,50	2,75	2,75	0,50	2,13	0,19
Test Case B	3,50	3,13	4,00	3,25	3,47	0,30
Test Case C	4,00	3,00	4,67	1,50	3,29	0,29
Test Case D	3,00	2,75	3,33	1,00	2,52	0,22
CORRELATION					0,903	

Table 15. The results for Technical section of the survey. Questions P1 to P5 for the expectations, and T1 to T5 for the satisfaction and performance.

TECHNICAL SUPPORT & SERVICES

CUSTOMER	Stated Importance	Weighting Factor	Satisfaction Score	Weighted Score	GAP
Test Case A	3,70	0,26	2,50	0,65	-1,20
Test Case B	3,80	0,27	3,20	0,86	-0,60
Test Case C	3,20	0,23	3,60	0,81	0,40
Test Case D	3,48	0,25	2,90	0,71	-0,58
CORRELATION			0,38829	0,137898	-0,494 Average GAP

Table 16. The results for Sales section of the survey. Questions P6 to P12 for the expectations, and T6 to T12 for the satisfaction and performance

SALES SUPPORT & SERVICES

CUSTOMER	Stated Importance	Weighting Factor	Satisfaction Score	Weighted Score	GAP
Test Case A	4,30	0,30	2,47	0,75	-1,83
Test Case B	3,89	0,27	2,21	0,61	-1,68
Test Case C	3,14	0,22	3,17	0,70	0,02
Test Case D	3,43	0,24	3,00	0,73	-0,43
CORRELATION			0,37677	-0,54068	-0,977 Average GAP

Table 17. The Documentation and Communication section results. Questions P13 to P15 for the expectations, and T13 to T15 for the satisfaction and performance.

DOCS&COMMS SUPPORT & SERVICES

CUSTOMER	Stated Importance	Weighting Factor	Satisfaction Score	Weighted Score	GAP
Test Case A	3,50	0,25	2,83	0,70	-0,67
Test Case B	3,67	0,26	3,17	0,82	-0,50
Test Case C	3,00	0,21	3,33	0,71	0,33
Test Case D	3,67	0,26	2,00	0,52	-1,67
CORRELATION			0,580381	0,330407	-0,625 Average GAP

Table 18. The results for Training related section. Questions P16 to P18 for the expectations, and T16 to T18 for the satisfaction and performance.

TRAINING SUPPORT & SERVICES					
CUSTOMER	Stated Importance	Weighting Factor	Satisfaction Score	Weighted Score	GAP
Test Case A	2,17	0,15	2,67	0,41	0,50
Test Case B	2,67	0,19	2,75	0,52	0,08
Test Case C	3,50	0,25	2,00	0,49	-1,50
Test Case D	3,00	0,21	3,00	0,63	0,00
CORRELATION			-0,68034	0,194325	-0,229 Average GAP

Table 19. The results of relationship fostering and management related section. Questions P19 to P24 for the expectations, and T19 to T24 for the satisfaction and performance.

RF&RM SUPPORT & SERVICES					
CUSTOMER	Stated Importance	Weighting Factor	Satisfaction Score	Weighted Score	GAP
Test Case A	3,38	0,24	1,85	0,44	-1,53
Test Case B	3,40	0,24	2,92	0,70	-0,48
Test Case C	2,50	0,18	2,80	0,49	0,30
Test Case D	3,17	0,22	3,00	0,67	-0,17
CORRELATION			0,668725	0,188129	-0,471 Average GAP

Table 20. The results for section based on price, product and brand. Question P25 to P29 on emphasis and expectation levels, and T25 to T29 on satisfaction and performance

PRODUCT & PRICE & BRAND					
CUSTOMER	Stated Importance	Weighting Factor	Satisfaction Score	Weighted Score	GAP
Test Case A	4,70	0,33	1,50	0,50	-3,20
Test Case B	4,00	0,28	2,50	0,71	-1,50
Test Case C	4,20	0,30	3,20	0,95	-1,00
Test Case D	4,00	0,28	2,75	0,78	-1,25
CORRELATION			0,870559	0,887005	-1,738 Average GAP

The correlation rate is calculated based on general satisfaction value and individual function satisfaction rates. The correlation indicates that the functions in tables 14 to 19 do not seem to have an strong effect on the general satisfaction, conversely, the product, price and brand related questions has an strong correlation with the general satisfaction. Hence, product, price and brand seem to have the strongest impact towards general

satisfaction ratings. Therefore, initial conclusion can be made that the pricing of the products, the features, the quality-price tradeoff and brand promotion activities has the major impact on the customer satisfaction. Whereas, the CEF functions are seen merely as givens from the customer point of view. The CEF functions has an impact on the satisfaction, but as the tangible factors are more easily defined by the customers, the value of support and services are not seen as important as the price, features, quality and brand.

In addition to price, product and brand category the 3R's section seems to follow the general satisfaction rates with high correlation, hence, these parameters are strong indicators of the customer perceived value and translates the customer commitment.

The stated importance is used when translating the stated satisfaction scores into satisfaction indexes i.e. weighted satisfaction scores. The weighted satisfaction scores are the indicators to be used in the final proposal of portfolio canvas. In addition to the weighted satisfaction scores, the relative indicator of 3R's is going to be added into the sum indicating customer satisfaction and loyalty.

The gap is used to indicate the priorities for improvement (Hill and Alexander, 2006). Gap is calculated by subtracting the stated satisfaction score from stated importance. The gap rate is used for identifying the most critical issues to be developed as first priority.

5.3 Tentative assessment process model (PPA)

This chapter is going to present the proposal for partnership performance assessment process by, first linking the internal and external dimensions of the mutual relationship values into portfolio canvas. Portfolio canvas is a representation of the customer base where the well performing and potential customers are distinguished from the non-performing customers. Furthermore, the portfolio canvas reveals indications on dissatisfaction and issues in customer commitment that can foresee potential problems within the customer base. First, the tools to analyse the internal and external dimensions are bound to establish the portfolio canvas, and finally, the proposal is presented and the outcome is prepared for testing in the final stage.

5.3.1 The portfolio canvas

The tools presented in chapters 5.1 and 5.2 to measure relevant indicators for both external drivers and internal drivers of relationship value needs to be bound in meaningful means. The portfolio canvas has two dimensions, the external dimension which is presented on the y- axis, and the internal dimension, that is going to be presented on the x –axis. Both dimensions are divided into low and high rates by using median values of the corresponding values. The relative customer profitability values are calculated in the tool presented in chapter 5.1 and the customers are placed on the canvas by their relative share of the whole customer base profitability. The customer satisfaction and loyalty values are defined by the survey presented in chapter 5.2, and the customers are placed on the portfolio canvas based on their individual perceptions of the provided customer experience. Hence, the x –axis represents the profitability and the y –axis represents the satisfaction and loyalty rates.

The portfolio canvas is a representation of the partner base, where individual customers are characterized by their current profitability and their perception of the value the case company provides them. Hence, the profitability translates their activity, individual demand on the different functions and their ability to create sales for the case company products. The CPA tool provides views into customer behaviours by assessing the individual functions separately, hence, revealing the critical functions that the individual customer consumes. The customer satisfaction and the customer commitment measurement reveals the efficiency, quality, the meaningfulness and the value adding characteristics of the provided support and service functions. Therefore, it can be argued that the portfolio canvas illustrates the mutual relationship value. The portfolio canvas is presented in figure 17.

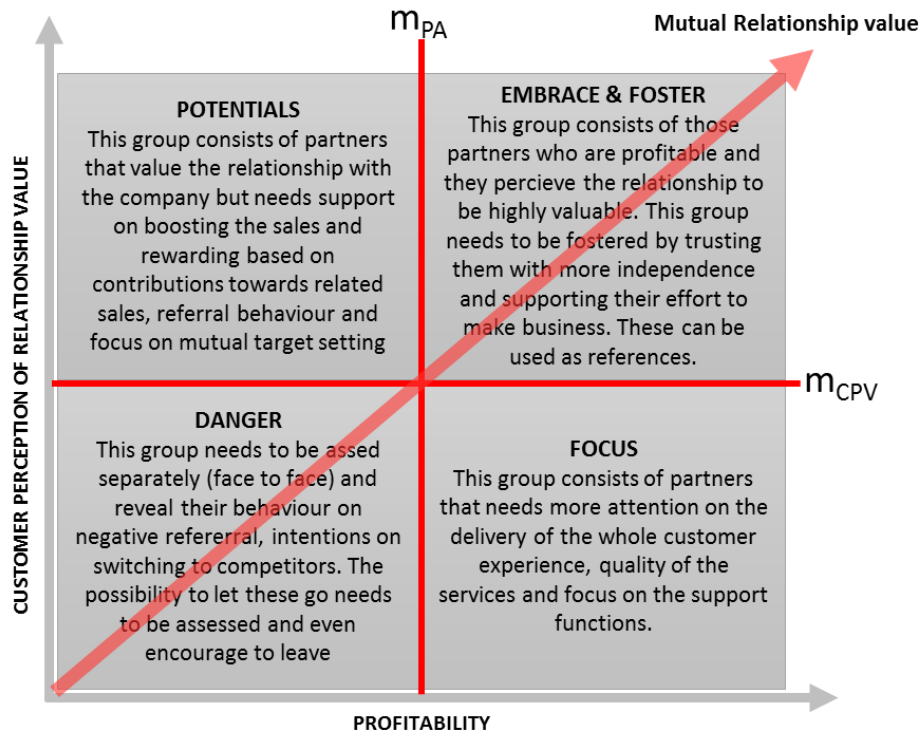


Figure 17. The portfolio canvas and characteristics for individual portfolios.

The portfolio canvas is divided into four distinct areas that are the embrace and foster group, the potentials group, the focus group and the danger group. The characterization of the different groups are as follows:

- **The Embrace and Foster group**

The customers who are placed in embrace and foster group are those who are profitable and satisfied compared to rest of the partner base. These customers should be embraced and rewarded to foster the relationship longevity and, moreover, the commitment of these customers should be driven towards loyalty i.e. commitment with emotional bounds. The customers in this group are highly satisfied, hence, they tend to elaborate positively the relationship with the provider to others, for example, potential customers and end users. These customers should be used as references for the case company products and brand.

- **The Potentials group**

This group is filled with customers that are more satisfied than unsatisfied and they are more committed compared to others in customer base. These customers are facing difficulties in their sales initiatives and might be more relying on the case company services, hence, the key to develop these is to boost their sales with sales campaigns and spearhead sales strategies. Additionally, as these customers are highly active towards the case company service and support functions, these can be effectively educated and might respond to co-operative initiatives in positive means. For this group, the case company should establish special services that adds value in the customer value creation process, for example, a hosted supervising system for the small and medium sized sites. The customers in this group are most likely in their beginning of the relationship with the provider.

- **The Focus group**

The customers who are placed in this group are the most demanding group, as these tend to be profitable but unsatisfied with low rates of commitment. The profitability of this group might be driven by their low satisfaction towards the case company services and support functions, hence, they are not willingly contacting the case company and they try to overcome problems independently. Hence, the focus of the services and support functions should be tailored to meet the expectations of these customers. Furthermore, the bonds with these customers should be enhanced and elaborated to decrease the intention to change vendor. The reason for these customers to stay with the provider, might be by the reason that they have legacy systems that they need to maintain and, thus, keep buying the case company products.

- **The Danger group**

The group name is provocative by intention. The customers who are placed in this group are the ones that cause major share of the decrease in the partner base profitability and additionally dislikes the case company. The customer of this group might be “bad mouthing” the case company and therefore causing damage in brand image. The customer in this group are not committed in the relationship

and most likely are using case company products occasionally when there is demand that cannot be replaced with an rival system. The relationship with these should be critically evaluated and the potential of the relationship should be analysed carefully. The outcome might be that the relationship should be ended.

5.3.2 The proposal of recurrent partnership performance assessment

The process to assess the relationship between the case company and its individual partner companies is grounded on the concepts of ABC costing system, Customer Satisfaction, loyalty and the satisfaction-profit chain and more importantly following the principles of Customer-Centricity and the change process to achieve this.

The ABC costing system is implemented in the case company CRM system to provide accurate and reliable data on the costs the customers cause by consuming the case company services and support functions in their daily work. The CPA tool (Customer Profitability analysis tool) is implemented on MS excel file where the required data is collected from the CRM system reports. The CPA tool provides insights of the customer buying behaviour, their level of competence and it reveals potential problems individually by support and service function. The CPA is measured to be able to control the costs of developing the customer satisfaction and loyalty.

The customer satisfaction and loyalty profiles are based on customer survey that is implemented on WEB-based survey platform. The customer satisfaction is measured respectively on individual support and service function to be able to compare and interpret the quality, efficiency and meaningfulness of the CEF functions. The loyalty measurement is revealing the customer intentions and behaviours reflecting the factors such as retention, referral behaviour and repeat business. Hence, the satisfaction and loyalty rates are being followed by indexes that reflects the progress of the development schemes and relationship strategies.

The customer-centricity is in the centre of the process. The customer-centricity in this context means that, internally, the case company needs to align its business to reflect on customer demand and requirements. Furthermore, it needs to change its processes of the frontline to support the customer demand and elaborate the learning from the customers. Customer-centricity is a continuous process of planning, acting, reflecting and learning, where the customer point of view is the foundation of all initiatives. Hence, the

partnership performance assessment process itself needs to be recurrent. Moreover, it needs to be continuous to be able to change the culture of the case company to be customer-centric and to foster the relationships' with individual customers. The proposed process model (PPA) for assessing partnership value and following progression of relationship value creation is represented in figure 18.

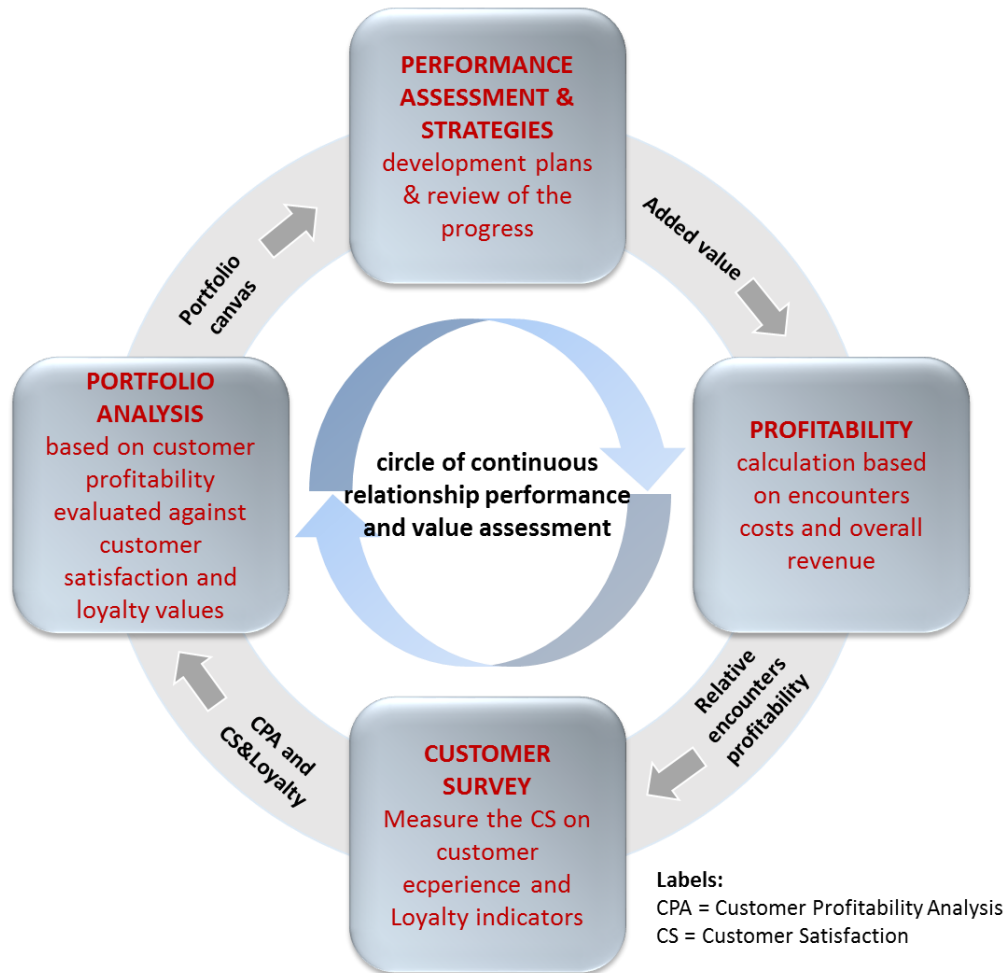


Figure 18. The PPA process

The outcome of the latter stages, i.e. the Portfolio Canvas, can be used to guide the relationship management decision making and relationship marketing initiatives. Portfolio Canvas presents guidelines for relationship development issues and topics by grouping the customer base based on customer profiles that are drawn on precise and reliable data. As Chen and Popovich (2003) states, the process to assess the relationships is about adding value through increasing revenues and decreasing customer related cost. Furthermore, Bolton (2004) adds that a customer-centric organization concentrates on

providing high quality experiences continuously and in consistent manner. Whereas, Kumar and Reinartz (2012) emphasizes the longitudinal studies of satisfaction and the investigation of the customer perceptions over time, and to bound these into the improvement efforts. Hence, the PPA process will support the change of the case company into customer-centric organization.

6 Testing the proposed PPA model

This chapter is presenting the steps that were conducted to test and to validate the proposed model for PPA process. Additionally, there is tentative development guidelines presented for the test cases selected in chapter 3.6.1. The tentative PPA model was used to analyse the whole customer base following the steps introduced in latter chapter. The interpretations and the summary of the tests are going to guide the further development needed on the PPA process.

6.1 Testing of the proposed PPA model

The testing of the proposed assessment model was conducted by sending the surveys to the whole customer base and retrieving the data for CPA tool from the CRM system. This testing represents the final data (Data 3) to be collected to fulfil the triangulation requirement of data reliability. The data from internal and external dimensions were collected into a MS Excel spreadsheet to provide the needed analysis and graphs to illustrate the current state of the individual relationship values. The phases of internal and external dimension data collection and results are discussed in following subheadings.

6.1.1 PPA test - Internal dimension results

The first phase was to group the customers by their profitability. The time frame for the analysis was decided to be based on the values from current fiscal year, i.e. from 1.1.2016 until 30.9.2016. The data at the selected time period is not as accurate as wanted, nevertheless the functionality of the tool is demonstrated. The data was inaccurate due to the lack of frontline staff commitment towards the CRM data logging. The data accuracy needs to be focused on in the future, i.e. the process of collecting the data

through out every function of the case company frontline needs to be engaged. The issues with the commitment and the data accuracy was discussed among the stakeholders, and it was stated that the piloting of the process will focus on these issues. Nevertheless, the data that was used for CPA was seen to be representing the most vital tasks and events to fulfil the objective at this stage. The results for CPA are presented in tables 21 and 22.

Table 21. Customer relative profitability

CUSTOMER PROFITABILITY ANALYSIS

CUSTOMER	RC _{SOT}	RC _{RANK}	RR _{SOT}	RR _{RANK}	CP _{REL}	CP _{RANK}	SEGMENT
SI A	0,159	↓	0,315	↑	0,157	1	II
SI B	0,139	↓	0,052	↑	-0,087	11	II
SI C	0,087	↓	0,025	↓	-0,061	10	IV
SI E	0,182	↓	0,064	↑	-0,117	12	II
SI F	0,007	↑	0,005	↓	-0,002	7	III
SI G	0,004	↑	0,004	↓	0,000	6	III
SI H	0,130	↓	0,117	↑	-0,013	9	II
SI I	0,000	↑	0,002	↓	0,001	5	III
SI J	0,019	↑	0,022	↓	0,003	4	III
SI K	0,039	↑	0,073	↑	0,035	3	I
SI M	0,036	↑	0,029	↓	-0,007	8	III
SI N	0,199	↓	0,291	↑	0,092	2	II
median	0,063		0,041		-0,001		

The CPA tool presents the internal point of view of the customer grouping. The grouping of the customers is presented in column “segment”. The grouping at this stage reveals the customer group that is above median revenue and below median in cost-to-serve, indicated with both arrows up in RC_{RANK} and RR_{RANK}, i.e. group 1. The group 2 are the customers whose cost-to-serve is above median (arrow down) and revenue is above median (arrow up). Group 3 are the customers who are below median (arrow up) for cost-to-serve but below median revenue (arrow down). Hence, these customers cost more to serve than they are delivering revenue. Group 4 are the customers that are both costly to serve and do not generate enough revenue to meet the demand they have yielded on the service and support functions. The purpose for the customer segmentation at this stage is to provide more precise information on the levels customers tend to burden the case company support and service functions. The segmentation can be used to draw tentative conclusions on customer behaviour and to question the reasons behind

the revenue and cost-to serve ratio changes. Moreover, it guides to question issues such as, are there external issues caused by markets that are yielding in to the problems seen in declining revenues or is there hidden reasons that causes the cost-to-serve ratios to increase, for example, lack of training.

Table 22. The customer demand on different functions

COSTS / FUNCTION																
CUSTOMER	01_techact			02_salesact			03_Docs&Comms			04_trainingact			05_RF&RM			SUM
	mins	%	CP ENCOUNTER	mins	%	CP ENCOUNTER	mins	%	CP ENCOUNTER	mins	%	CP ENCOUNTER	mins	%	CP ENCOUNTER	(min)
SI A	786	0,13	<div><div></div><div>0,19</div></div>	5796	0,19	<div><div></div><div>0,12</div></div>	220	0,29	<div><div></div><div>0,03</div></div>	1800	0,14	<div><div></div><div>0,17</div></div>	84	0,02	<div><div></div><div>0,30</div></div>	8686
SI B	1248	0,20	<div><div></div><div>-0,15</div></div>	3642	0,12	<div><div></div><div>-0,07</div></div>	95	0,13	<div><div></div><div>-0,07</div></div>	2580	0,21	<div><div></div><div>-0,15</div></div>	60	0,01	<div><div></div><div>0,14</div></div>	7625
SI C	618	0,10	<div><div></div><div>-0,08</div></div>	1344	0,04	<div><div></div><div>-0,02</div></div>	30	0,04	<div><div></div><div>-0,01</div></div>	2700	0,22	<div><div></div><div>-0,19</div></div>	56	0,01	<div><div></div><div>0,01</div></div>	4748
SI E	36	0,01	<div><div></div><div>0,06</div></div>	2541	0,08	<div><div></div><div>-0,02</div></div>	15	0,02	<div><div></div><div>0,04</div></div>	2700	0,22	<div><div></div><div>-0,15</div></div>	4648	0,87	<div><div></div><div>-0,31</div></div>	9940
SI F	0	0,00	<div><div></div><div>0,00</div></div>	273	0,01	<div><div></div><div>0,00</div></div>	35	0,05	<div><div></div><div>-0,04</div></div>	0	0,00	<div><div></div><div>0,00</div></div>	60	0,01	<div><div></div><div>0,01</div></div>	368
SI G	96	0,02	<div><div></div><div>-0,01</div></div>	84	0,00	<div><div></div><div>0,00</div></div>	15	0,02	<div><div></div><div>-0,02</div></div>	0	0,00	<div><div></div><div>0,00</div></div>	0	0,00	<div><div></div><div>0,00</div></div>	195
SI H	852	0,14	<div><div></div><div>-0,02</div></div>	3507	0,12	<div><div></div><div>0,00</div></div>	10	0,01	<div><div></div><div>0,10</div></div>	2700	0,22	<div><div></div><div>-0,10</div></div>	28	0,01	<div><div></div><div>0,11</div></div>	7097
SI I	0	0,00	<div><div></div><div>0,00</div></div>	21	0,00	<div><div></div><div>0,00</div></div>	0	0,00	<div><div></div><div>0,00</div></div>	0	0,00	<div><div></div><div>0,00</div></div>	0	0,00	<div><div></div><div>0,00</div></div>	21
SI J	72	0,01	<div><div></div><div>0,01</div></div>	966	0,03	<div><div></div><div>-0,01</div></div>	20	0,03	<div><div></div><div>0,00</div></div>	0	0,00	<div><div></div><div>0,02</div></div>	0	0,00	<div><div></div><div>0,02</div></div>	1058
SI K	216	0,04	<div><div></div><div>0,04</div></div>	1884	0,06	<div><div></div><div>0,01</div></div>	15	0,02	<div><div></div><div>-0,05</div></div>	0	0,00	<div><div></div><div>0,07</div></div>	0	0,00	<div><div></div><div>0,17</div></div>	2115
SI M	882	0,14	<div><div></div><div>-0,12</div></div>	1071	0,04	<div><div></div><div>-0,01</div></div>	30	0,04	<div><div></div><div>-0,01</div></div>	0	0,00	<div><div></div><div>0,03</div></div>	0	0,00	<div><div></div><div>0,03</div></div>	1983
SI N	1296	0,21	<div><div></div><div>0,08</div></div>	8967	0,30	<div><div></div><div>-0,01</div></div>	275	0,36	<div><div></div><div>-0,07</div></div>	0	0,00	<div><div></div><div>0,29</div></div>	378	0,07	<div><div></div><div>0,22</div></div>	10916
SUM	6102		CP ENCOUNTER	30096		CP ENCOUNTER	760		CP ENCOUNTER	12480		CP ENCOUNTER	5314		CP ENCOUNTER	54752
Time multiplier	18			16			events			events			21			

Table 22 represents the customer profitability ratios by function. This illustration can be used to probe deeper into the sources of the issues and hence, it can be used to guide the allocation of the resources. The time multipliers can be changed, if required. Therefore, the CPA tool is flexible in means of activity cost driver approximation. Furthermore, the CRM system supports the events to be logged with the duration of the task, which reduces the complexity of the ABC costing system.

6.1.2 PPA test – external dimension results

The second phase was to send out invitations to selected respondents in the whole customer base for the survey. The respondents for the survey were selected by their occupancy and function. The applicable representatives for each company was selected based on the views presented by case company frontline staff. The respondents are CEO's, Technical and project managers and sales managers of the partner companies. Up to 28 respondent were identified and the response rate was 15. All customer companies were represented in the responses. The remaining respondents either refused to answer or were too busy to be able to answer within the given five days. As all of the customer companies were represented in the responses, the survey was decided to be representative enough to carry out the test.

The respondent were advised to feedback on any issues or other topics that would have been inhibiting them to answer truthfully. There was some feedback such as, one respondent was not able to score every question due to not have been encountering the topic. This issue was seen in few other responses and hence, the amount of questions seem to be acceptable in means of gathering average values per function and letting some gaps in the answers. The results are shown in table 23 that presents the values yielding into the portfolio canvas, where the results from the survey and the results for the CPA are present.

There was no significant feedback on the survey method nor the presentation of the survey. Based on unofficial phone conversations with the customers, the respondent were feeling positively towards the presented survey and there were no negative input on the suggestion that the survey would be conducted at least twice a year.

Customer Profitability					Customer Loyalty and Satisfaction						
SI	RCSOT	RRSOT	CPREL	Comm	TS	SS	DC	TR	RM	PPB	CL+CS
A	0,159	0,315	0,1566	0,044	0,072	0,126	0,186	0,024	0,089	0,096	0,143
B	0,139	0,052	-0,0869	0,068	0,151	0,259	0,287	0,251	0,230	0,230	0,302
C	0,087	0,025	-0,0612	0,114	0,221	0,206	0,278	0,176	0,237	0,239	0,340
E	0,182	0,064	-0,1174	0,090	0,323	0,252	0,279	-	0,215	0,165	0,337
F	0,007	0,005	-0,0017	0,083	0,383	0,292	0,207	0,213	0,213	0,299	0,351
G	0,004	0,004	0,0001	0,043	0,172	0,137	0,128	-	0,120	0,115	0,177
H	0,130	0,117	-0,0131	0,112	0,260	0,203	0,321	0,209	0,156	0,216	0,340
I	0,000	0,002	0,0012	0,092	0,345	0,230	0,186	0,180	0,215	0,228	0,323
J	0,019	0,022	0,0030	0,083	0,291	0,246	0,176	0,215	0,227	0,263	0,319
K	0,039	0,073	0,0345	0,108	0,276	0,238	0,239	0,168	0,168	0,322	0,343
M	0,036	0,029	-0,0071	0,094	0,172	0,195	0,251	0,112	0,144	0,218	0,276
N	0,199	0,291	0,0920	0,070	0,241	0,254	0,237	0,138	0,150	0,169	0,268
median			-0,00081							median	0,321098

Table 23. The results of the survey added with the 1st phase results on profitability.

The table 23 presents the results on both, the phase 1 customer profitability tool analysis combined with the phase 2 values of the customer satisfaction and loyalty survey. Table 23 is the detailed value view of the source values for the Portfolio Canvas. The profitability factors are presented in columns *RCSOT*, *RRSOT* and *CPREL*, where the *CPREL* is the value for relative share of profitability in whole customer base. *CPREL* is the value that defines the customer positioning in respect of x-axis in the portfolio canvas. The customer loyalty factors are presented in column “*Comm*”, which are calculated as average from the different commitment factors, i.e. retention, referral and related sales, and divided as per share of whole customer base. The satisfaction rates are presented per distinct function and the *CL+CS* column is the average of these values added with the commitment values. The average of satisfaction rates is based on the *Weighted Score* for the function. *CL+CS* defines the positioning of the customer in the portfolio canvas y-axis. The median of both profitability and commitment with satisfaction rates are the boundaries for defining the portfolios.

Table 24 is presentation of the detailed values of the survey where the values are divided by specific functions. The Partnership performance analysis tool creates charts of these values to visualize the rates as graphical presentation of the GAP, the 3R's and the weighted satisfaction factors. Examples of charts are presented in appendix 5.

Table 24 presents the values of each section of the survey. The sections are divided by the support and service functions and the loyalty measurement. The loyalty rate is drawn on question probing retention, related sales, and referral behaviour, hence the *3R ind* is calculated as average of these values and presented as share of total customer base to reveal the level of commitment for each customer. The function sections presents the importance factor and the related satisfaction stated by the customers. The stated importance and the stated satisfaction are used to calculate the *Weighted Score* and the *GAP* rate. The meaningfulness and the reliability of the sections are followed by the correlation value to ensure the confidence of the answers with the stated overall satisfaction. Furthermore, to be able to draw quick interpretations on which of the functions are the most critical in means of prioritising the development initiatives, the average gap is calculated in *AVG GAP*.

6.1.3 PPA test – Portfolio Canvas result

Figure 19 presents the outcome of the CPA and CS and Loyalty analysis. The analysis of the internal and external aspects are presented in Portfolio Canvas where the internal aspect is represented in the x-axis and the external dimension is in the y-axis.

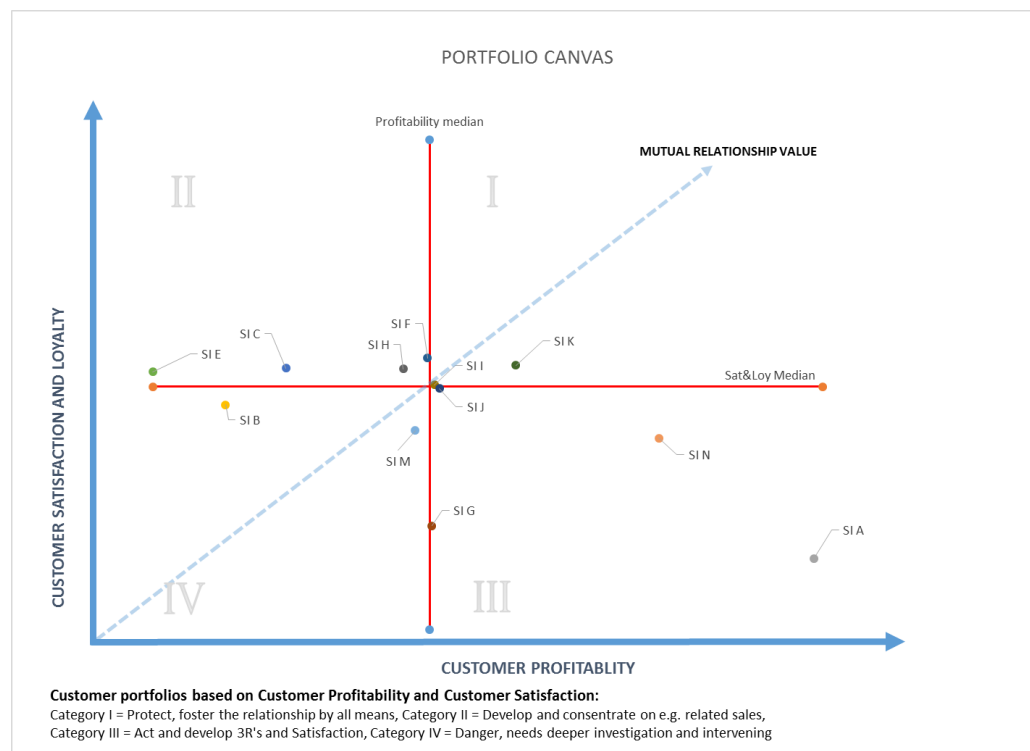


Figure 19. The Portfolio Canvas of the partner base

Figure 19 is a dynamic representation of the Portfolio Canvas that was presented in figure 17. The upper right corner segment (I) is the group of the most satisfied, committed and positively profitable customers. The upper left segment (II) are the ones that are satisfied and committed but not the most profitable ones. The third segment in bottom right (III) are customer who are not satisfied nor committed, but are profitable. The last segment in bottom left (IV) are the customer that are not satisfied nor committed, furthermore, these are not profitable.

6.2 Analysis and validation of the proposed PPA model

The analysis of the latter results presented in chapters 6.1.1 to 6.1.3 was conducted in co-operation with the case company Channel Leader, Nordic Channel Manager and the local frontline. The aim was to validate the CPA tool and the CS and Loyalty analysis tool and to interpret the reliability of the Portfolio Canvas by comparing the tacit assumptions and the perspectives of the staff against the outcome. The meeting was aiming to validate, assess the reliability and set the future targets of the proposed partnership performance assessment process.

The meeting was intended to reflect the real setting when CRM decisions are conducted in daily basis, to be able to reveal the potential of the process to aid in the relationship management decision making process. Hence, the meeting was not structured based on any specific topics nor themes. The participants were introduced to the concepts of the process and provided them with the test results. The participants were aloud 10 minutes to interpret the results and then the conclusions were presented to the audience. The main points were, by freely phrasing the participants, based on hand written meeting notes:

- Channel leader:

“On the category of price, product and brand, there is clear indication that the demand creation needs to be emphasized. The marketing efforts needs to be strengthened and meeting the customer demand such as in product features, needs to be considered. It can also be seen that the price flexibility needs to be focused on.”

- Channel Sales manager:
“Overview is encouraging. It is fairly positive that the customers demand for more marketing efforts from us. But as for the validity and reliability issues in the results, the collection of the data needs a cultural change within the staff.”
- BDM, referring to customer SI N:
“There has been several occasions where we have suggested marketing events together with them and sales initiatives in co-operation, but still, the final response has always been that there is no need to do the suggested together. This could be interpreted that they wish us to give sales leads on silver plate. Hence, the efforts to drive co-operative initiatives in marketing and sales activities could be elaborated and demanded.”
- Channel leader:
“The overall feeling is that it is a good approach, and the focus needs to be on the next steps, the proposals for confronting the issues found. Methods, such as loyalty programs that drive customer loyalty and co-operative brand promotion, could be used. Overall, the initiatives are based generally on own creativity.”

The conversation was concluded with some key points, first, the most important (i.e. potential) partners has to be the ones that are focused on. Secondly, the output of the proposal delivers on local understanding of the markets and, lastly, the issues are diverse and there are many, hence the proposal sheds light on these and helps to draw the right conclusions.

Therefore, it can be concluded that the issue with the validity and reliability of the process lies on the commitment of both the management and the cultural change within frontline employees, where the logging of the activities are essential. The key is for the management to drive the customer centric-culture and for the employees to create a need for delivering excellent customer service and experience.

Overall it can be stated that despite the issues of the CPA data reliability, the process itself can be validated and the reliability of the results need to be enhanced within the recurrent cycles of the assessment process. The team meeting was concluded by setting a tentative piloting time schedule for the partnership performance assessment process. It was decided that the first round will be conducted in Q1 2017 and followed by half year

assessment in the beginning of Q3 2017, to be able to assess the indicative nature of the process to reveal progression of the relationship development initiatives.

6.3 Proposal action plans for test cases TCA and TCB

The aim of the assessment process is to present guidelines to develop relationship strategies and action plans to increase the value of the relationships. Hence, the outcome of the assessments yield into a list of most important issues that needs to be tackled in the individual relationships. For the intended output for the thesis and for the purpose of testing the outcome of the PPA results, there are some guidelines presented for developing the relationship with test cases, SI C and SI M, that where selected in CSA phase (chapter 3.6.1).

6.3.1 Test case A, guidelines to develop the relationship with SI C

SI C is operating in market area where the construction business is not growing, hence, the BMS business of the company relies mostly on the retrofitting projects and moreover in small to medium sized BMS projects. As the case company product portfolio is not focused in smaller BMS systems, there is a need to develop the case company value proposition by, for example, central supervisor services (CSS). CSS is based on server that provides user interfaces for the end users of the BMS system, furthermore, CSS enables small sites to be monitored effectively without the need for supervisor software maintenance and engineering. The benefit for the SI is that the supervisor software costs and the engineering efforts can be omitted from the projects, hence, it decreases the project costs and enables lower selling price.

SI C is placed in portfolio II, which suggests that they are committed but struggling to deliver revenue. To deploy their commitment level, case company should focus on providing means to affect the product pricing in more flexible means and to support the sales opportunities to be able to affect the “share of wallet”. The key is to establish the market share in the area where SI C is working. Hence, case company should focus in business development and marketing initiatives in the market area of SI C, to help them to sell more.

The key points to develop the relationship with SI C:

- Increase the sales and marketing support, by for example, facilitate a central supervisor service managed by case company.
- Probe deeper into the issues causing the gap in technical and sales functions. It seems that, despite SI C is consuming a lot of technical and sales support, they do not seem to get what they require.
- Co-operative marketing events in the region.
- Drive upselling initiatives, as SI C seems to be rather satisfied towards case company product portfolio.

6.3.2 Test case B, guidelines to develop the relationship with SI M

SI M is concentrated on maintenance services, hence, uses variety of different vendor products. Overall the commitment ratio for SI M is moderate, fourth within all customers and the satisfaction rates exceeds the expectations, both in technical and sales support. The training and relationship fostering functions are perceived negatively and the most significant gap is in the category of product, price and brand. According to CPA tool, SI M is heavily consuming the technical support function and moderately the sales support. SI M has not consumed training services, which can be indicating that they would possibly gain better background knowledge through trainings yielding into lower demand towards technical support function, hence, the cost-to-serve ratio would decrease affecting the profitability rate.

SI M has significant potential to sell more as they interact with several end user institutions. The key to increase sales is to affect the SI M internally by upselling case company products. SI M has potential in their customer facilities to switch BMS systems into case company systems. To gain this, case company has to demand for bigger sales within the SI M and to promote new technologies provided from case company.

The key topics:

- Training events, especially in new product releases. Use trainings to develop the knowledge of the SI M employees and create bonds towards case company products.
- Promote case company internally in SI M organization.

- Focus on price flexibility to increase case company share of SI M sales. The single product pricing needs to be focused on as SI M generally buys one unit at a time and not several products in one purchase order.

6.4 Summary and interpretations on the results

The first stage was to analyse the customers by their profitability. There was seen some level of defiance in the data collected from the CRM system. The lack of logged activities yields into unreliable results affecting the whole customer base regarding the relative profitability rates. For the purpose of the task, where the functionality of the CPA tool was tested and initial benchmark values were validated, the results were seen to be adequate.

The second stage to collect the customer perceptions was successful. There was no remarkable defects found by the customers on the survey and the feedback on the survey was positive and without any major issues. Hence the CPV survey was validated and the results can be used as benchmark values for the upcoming assessment rounds.

The tentative development plans that were introduced in chapter 6.3 were not possible to be implemented in the context of the thesis due to limited time to finalize the research project. The presented topics can be used as examples in introducing the individual relationship development plans and in the relationship strategy planning process.

The proposed model for partnership performance assessment was seen applicable as it was proposed. The implementation of the recurrent assessment cycle will be used for enhancing some details in the presented tools i.e. it is a continuous learning process. As for the most significant defiance, namely, the usage of the CRM system, it will require executive and management level commitment to drive the cultural change into whole organization, at least in the frontline functions. The logging of the activities and the utilization of the ABC system applied in the CRM system needs to be demanded to ensure more reliable results to drive the right decisions in the relationship development initiatives.

7 Conclusions

This chapter will conclude the research to develop a meaningful assessment process of partner relationships in business to business environment. First, the whole project will be summarized and the final outcome will be compared against the intended thesis objective. Finally, the evaluation of the research validity and credibility will be discussed.

7.1 Summary of the whole project

The essence of this thesis was to create a process to guide managerial decision making related to customer relationships, i.e. partner relationships. The process was divided into two distinct dimensions of relationship value. The assessment process was based on both internal aspect of the case company combined with the external aspect of the customer perceptions.

The internal aspect of the case company was grounded on customer profitability. To be able to analyse the customer profitability, there was a need to develop a comprehensive method to assess the costs yielded by customer demand towards case company support and service functions. The method was grounded on activity based costing (ABC) concept that allows to distinguish customers by their consumption of different functions. The ABC system was implemented into the case company CRM system where the diverse activities could be logged. The CRM system had to be modified to support the activity logging by the different functions and to be able to allocate the activities by different customers. The distinction of the customers was decided based on their behaviours in means of cost-to-serve ratio compared to their revenue contribution.

The assessment of the internal dimension of the relationship value was developed by revealing the gaps in current process of collecting data for individual partners. This was conducted in current state analysis phase which revealed the critical topics that had to be confronted in enhancing the CRM system and, more importantly, it guided towards the relevant topics to be investigated in the existing literature. The conceptual framework was built on the topics of customer-centricity, relationship management, ABC systems and customer perceptions, which is the bundle of satisfaction and commitment.

The external dimension of the relationship value was grounded on customer perceptions of the provided customer experience. The phase to develop the customer perception survey was conducted by in-depth interviews with selected customers to reveal the most important topics related to the customer experience provided by the case company. The results of the in-depth interviews were used when the final survey was presented.

The internal and external value dimensions were combined into the portfolio canvas, where the internal aspect of customer profitability is presented in the x-axis and the external aspect of customer perceived value is presented on the y-axis of the chart. The intention of the portfolio canvas is to present a comprehensive overview of customer base, revealing the potential customers and to point out the customers on whom the relationship development initiatives should be focused on. Portfolio canvas establishes a solid ground for individual partner relationship development schemes and reveals issues that needs to be tackled in relationship strategies and individual action plans.

Finally, the tools to analyse the relationship performance in means of individual customer profitability and their satisfaction and commitment rates towards case company were presented in a cyclic process, where the profitability analysis is followed by customer surveys and these are summarized into a portfolio analysis. The cycle of recurrent assessment process was presented and tested in the final phase of the project, yielding into suggestions to develop the relationships with two selected partner companies. The tests were showing the potential of the process to guide the decision making related to relationship development tasks. Furthermore, the test results can be used to develop the relationship strategies and as guidelines to develop meaningful fact based action plans to foster the partner relationships and, furthermore, to enhance the case company brand promotion and product sales.

7.2 Outcome vs objective

The objective of this thesis was to develop credible means to guide the relationship development initiatives through a recurrent process of assessment of the relationship value. The outcome guides the case company towards customer-centricity by changing the process of collecting the customer perception and revealing the most critical issues inhibiting the customer relationships to evolve in profitable means. Hence, the objective of creating a process to assess the relationships was fulfilled and additionally, there was

comprehensive tools introduced, to make decisions based on precise information of individual support and service function. This ensures that the customers are provided with the relevant suggestions to enhance their value creation functions. More importantly, the continuous cycle of relationship assessment both internally and externally will drive balanced means for developing the relationships in ways that satisfies both parties, i.e. the initiatives to develop customer satisfaction and commitment are developed in economically viable means.

It can be stated that in respect of the thesis objective, the outcome fulfils the target and the starting point for customer relationship development was established. The final conclusion of the efficiency of the process will emerge within time, if the process will be applied in the case company. It will demand change in case company culture where the customers are viewed as assets to be fostered and not as simple resellers of case company products.

To apply the proposed process, case company will need to ensure the change of the CRM system to support the ABC system and emphasize the importance of the process of logging the frontline activities. The management need to be committed into changing the processes and the employees need to understand the benefits of changing their behaviour of reporting their activities. Moreover, the customers has to be convinced about the benefits on reporting their satisfaction and commitment perceptions. The PPA process will eventually change the case company staff behaviour and function alignment more supportive towards customer expectations, hence, it will drive the change towards customer-centric organization.

7.3 Credibility

The research project in this thesis was divided in three separate phases where each phase represented the data collection of at least two different sources. The usage of multiple data sources is demanded to meet the requirement of data triangulation (Long and Johnson, 2000). The phases of the research were presented in chapter 2.4 with the corresponding plan for each phase to ensure the data validity and reliability. The research was conducted by following the validity and reliability plan as presented, hence, every phase included the steps of identifying and describing the problem at hand, the planning phase to confront the problem and gather more information to finally interpret

and analyse the data in co-operation both, internally with the case company stakeholders, and externally with the relevant stakeholders. The validity was pursued by seeking consensus and mutual approval of the stakeholders in each stage.

The results of every step conducted in the research was validated internally and hence, it can be stated that there is a credible foundation in the thesis as the results were confirmed by the stakeholders. Furthermore, as the credibility was affected by the narrowness of the data collected into the CRM system, the upcoming rounds of PPA cycles needs to focus in the data quality and reliability affected by the process of collecting the data. The PPA process itself fulfils the definition of reliability as it builds on stability, integrity and equivalence (Long and Johnson, 2000). This is based on that both, the surveys and the profitability assessments, that are recurrently conducted are unchanged, hence these are stable, and the integrity is followed by the correlation with stated overall satisfaction to ensure the concordance towards the topic and lastly, the equivalence is met by having multiple questions on one topic.

It can be noted, that the future cycles of the PPA process will build on reliability and, hence, it will develop the credibility. Nevertheless, the process itself will be essentially a continuous learning process of customer behaviours and recurrent efforts to develop the relationships between the case company and its customers. Hence, the PPA process is a guide in a reality of diverse and many issues to confront the essence of “doing best what means most for the customer” (Hill and Alexander, 2006).

References

Accenture research (2015), "Building automation markets in Finland, Sweden and Denmark", February 2015 update to June 2012 research.

Atul, P. and Jagdish S. N. (2001), "Customer Relationship Management: Emerging Practice", Process, and Discipline, *Journal of Economic and Social Research* 3(2) 2001, 1-34

Bolton, M. (2004), "Customer centric business processing", *International Journal of Productivity and Performance Management*, vol. 53, no. 1, pp. 44-51.

Bortolotti T., Boscari S and Danese P. (2015), "Successful lean implementation: Organizational culture and soft lean practices", *International Journal of Production Economics*, Volume 160, February 2015, Pages 182-201, ISSN 0925-5273

Chen, I. J. and Popovich K. (2003), "Understanding customer relationship management (CRM)", *Business Process Management Journal*, Vol. 9 Iss 5 pp. 672 - 688

Cochlan, D and Brannick, T (2014), "Doing action research in your own organization", Los Angeles, CA.

Cokins, G. (2006), "Measuring Customer Value: How BPM Supports Better Marketing Decisions", *Business Performance Management Magazine*, vol. 4, no. 1, pp. 13-18.

Cokins, G. and Lawson, R. (2006), "Implementing Activity-Based Costing." Available at: <http://www.imanet.org/docs/default-source/research/sma/implementing-activity-based-costing.pdf?sfvrsn=2> (Accessed: 14 June 2016)

Dev, C, and Schultz, D (2005), "A customer-focused approach can bring the current marketing mix into the 21st century", *Marketing Management*, 14, 1, pp. 16-22, *Business Source Elite*, EBSCOhost, viewed 8 June 2016.

Eggert, A. & Ulaga, W. (2002), "Customer perceived value: A substitute for satisfaction in business markets?", *The Journal of Business & Industrial Marketing*, vol. 17, no. 2, pp. 107-118.

Fleisher, C. S. and Bensoussan, B. E. (2003), "Strategic and competitive analysis: methods and techniques for analyzing business competition", Upper Saddle River, NJ, Prentice Hall.

Floh, A., Zauner, A., Koller, M. and Rusch, T. (2014) "Customer segmentation using unobserved heterogeneity in the perceived-value–loyalty–intentions link", *Journal of Business Research*, 67(5), pp. 974–982. doi: 10.1016/j.jbusres.2013.08.003.

Goldkuhl, G. 2012, "Pragmatism vs interpretivism in qualitative information systems research", *European Journal of Information Systems*, vol. 21, no. 2, pp. 135-146.

Gunasekaran, A. (1999), "A framework for the design and audit of an activity-based costing system", *Managerial Auditing Journal*, Vol. 14 Iss 3 pp. 118 - 127

Heinen, J (2006), "Improving customer service: taking a strategic approach to measuring contact center performance", *Health Management Technology*, 27, 5, pp. 34-36 3p, CINAHL Complete, EBSCOhost, viewed 26 May 2016.

Heskett, J.L., Sasser, W.E. Jr and Schlesinger, L.A. (1997), "The service profit chain: how leading companies link profit and growth to loyalty, satisfaction, and value", New York: Free Press

Heskett, J, Jones, T, Loveman, G, Sasser, J, & Schlesinger, L (2008), "Putting the Service-Profit Chain to Work", *Harvard Business Review*, 86, 7/8, pp. 118-129, Business Source Elite, EBSCOhost, viewed 26 August 2016.

Hill, N. and Alexander, J. (2006), "The handbook of customer satisfaction and loyalty measurement (3rd ed.)." Aldershot: Gower.

Kaplan, R.S and Cooper, R. (1998), "Cost & effect: using integrated cost systems to drive profitability and performance", Boston, MA : Harvard Business School Press

Kaplan, R.S. and Anderson, S.R. (2007), "The innovation of time-driven activity-based costing", Thomson Reuters (Tax & Accounting) Inc, Boston.

Keogh, B. (2009), "Taking Action With Customer Measurements", *Croplife*, vol. 172, no. 7, pp. 30-31.

Kotter, J. (2013), "Leading Change", *Leadership Excellence Essentials*, 30, 2, p. 6, *Business Source Elite*, EBSCOhost, viewed 23 May 2016

Kotler, P and Lane Keller, K (2009), "Creating Customer Value, Satisfaction, and Loyalty, A Framework for Marketing Management", Fourth Edition, chapter 4, Pearson Education, Inc.

Kumar, V. and Reinartz W. (2012), "Relationship Marketing and the Concept of Customer Value, Customer Relationship Management", *Springer Texts in Business and Economics*, Springer-Verlag Berlin Heidelberg

Lawrence, T.B., Dyck, B., Maitlis, S. and Mauws M.K. (2006), "The Underlying Structure of Continuous Change", *MIT Sloan Management Review*, vol. 47, no. 4, pp. 59-66.

Laming, C. and Mason, K. (2014), "Customer experience - an analysis of the concept and its performance in airline brands", *Research in Transportation Business & Management*, 10, pp. 15–25. doi: 10.1016/j.rtbm.2014.05.004.

Long, T. and Johnson, M. (2000), "Rigour, reliability and validity in qualitative research", *Clinical Effectiveness in Nursing*, 4(1), pp. 30–37. doi: 10.1054/cein.2000.0106.

Marshall, C. and Rossman, G. B. (2006), "Designing qualitative research (4th ed.)". Thousand Oaks, CA: Sage.

McDougall, G.H.G. and Levesque, T. (2000), "Customer satisfaction with services: Putting perceived value into the equation", *Journal of Services Marketing*, 14(5), pp. 392–410. doi: 10.1108/08876040010340937.

Mitchell, A. (2004), "Time to shift the focus to your customers - for real", *Marketing Week*, pp. P.30-P.31.

Richards, K.A. and Jones E. (2008), "Customer relationship management: Finding value drivers", *Industrial Marketing Management* 37 (2008) 120–130

Ritter, T. and Walter, A. (2012), "More is not always better: The impact of relationship functions on customer-perceived relationship value", *Industrial Marketing Management*, 41(1), pp. 136–144. doi: 10.1016/j.indmarman.2011.11.020.

Storbacka, K., Strandvik, T. and Grönroos, C (1994), "Managing Customer Relationships for Profit: The Dynamics of Relationship Quality, *International Journal of Service Industry Management*", Vol. 5 No. 5, 1994, pp. 21-38.

Storbacka, K. (1997), "Segmentation Based on Customer Profitability--Retrospective Analysis of Retail Bank Customer Bases", *Journal of Marketing Management*. Jul97, Vol. 13 Issue 5, p479-492.

Storbacka, K. and Lehtinen, J. R. (2001), "Customer relationship management: creating competitive advantage through win-win relationship strategies", Singapore, McGraw-Hill.

Stout, D.E. and Propri, J.M. (2011), "Implementing Time-Driven Activity-Based Costing at a Medium-Sized Electronics Company", *Management Accounting Quarterly*, vol. 12, no. 3, pp. 1-11.

Sweeney, J.C. and Soutar, G.N. (2001), "Consumer perceived value: The development of a multiple item scale", *Journal of Retailing*, 77(2), pp. 203–220. doi: 10.1016/s0022-4359(01)00041-0.

Talaba, M. (2013), "Comparison between customer lifetime value (clv) and traditional measurement tools of customer value", *Knowledge Horizons, Economics*, 5(2), pp. 189-192.

Terho, H. and Halinen, A. (2007), "Customer portfolio analysis practices in different exchange contexts", *Journal of Business Research*, 60(7), pp. 720–730. doi: 10.1016/j.jbusres.2007.03.001.

Ulaga, W. and Chacour, S. (2001), "Measuring customer-perceived value in business markets", *Industrial Marketing Management*, 30(6), pp. 525–540. doi: 10.1016/s0019-8501(99)00122-4.

Partner Portfolios questionnaire for CSA

The appendix has been omitted for privacy reasons – the relevant information has been available for the instructor(s)

Mapping the Frontline Activities and defining the Activity pools

The appendix has been omitted for privacy reasons – the relevant information has been available for the instructor(s)

In-depth interview and the questionnaire

The appendix has been omitted for privacy reasons – the relevant information has been available for the instructor(s)

Customer satisfaction and loyalty survey

The appendix has been omitted for privacy reasons – the relevant information has been available for the instructor(s)

Examples of PPA tool graphs – the results of the test

The appendix has been omitted for privacy reasons – the relevant information has been available for the instructor(s)

